09/580,388

```
Welcome to STN International!  Enter x:x

LOGINID:ssspta1125txc

PASSWORD:
 * * * * * * RECONNECTED TO STN INTERNATIONAL * * * * * *
SESSION RESUMED IN FILE 'USPATFULL' AT 09:16:49 ON 09 JUL 2003
FILE 'USPATFULL' ENTERED AT 09:16:49 ON 09 JUL 2003
CA INDEXING COPYRIGHT (C) 2003 AMERICAN CHEMICAL SOCIETY (ACS)
COST IN U.S. DOLLARS                                SINCE FILE      TOTAL
                                                       ENTRY    SESSION
FULL ESTIMATED COST                                    20.52      20.73

=> FILE USPATFULL
COST IN U.S. DOLLARS                                SINCE FILE      TOTAL
                                                       ENTRY    SESSION
FULL ESTIMATED COST                                    21.79      22.00

FILE 'USPATFULL' ENTERED AT 09:17:14 ON 09 JUL 2003
CA INDEXING COPYRIGHT (C) 2003 AMERICAN CHEMICAL SOCIETY (ACS)

FILE COVERS 1971 TO PATENT PUBLICATION DATE: 8 Jul 2003 (20030708/PD)
FILE LAST UPDATED: 8 Jul 2003 (20030708/ED)
HIGHEST GRANTED PATENT NUMBER: US6591423
HIGHEST APPLICATION PUBLICATION NUMBER: US2003126664
CA INDEXING IS CURRENT THROUGH 8 Jul 2003 (20030708/UPCA)
ISSUE CLASS FIELDS (/INCL) CURRENT THROUGH: 8 Jul 2003 (20030708/PD)
REVISED CLASS FIELDS (/NCL) LAST RELOADED: Feb 2003
USPTO MANUAL OF CLASSIFICATIONS THESAURUS ISSUE DATE: Feb 2003

>>>  USPAT2 is now available.  USPATFULL contains full text of the     <<<
>>>  original, i.e., the earliest published granted patents or         <<<
>>>  applications.  USPAT2 contains full text of the latest US         <<<
>>>  publications, starting in 2001, for the inventions covered in     <<<
>>>  USPATFULL.  A USPATFULL record contains not only the original     <<<
>>>  published document but also a list of any subsequent              <<<
>>>  publications.  The publication number, patent kind code, and      <<<
>>>  publication date for all the US publications for an invention     <<<
>>>  are displayed in the PI (Patent Information) field of USPATFULL   <<<
>>>  records and may be searched in standard search fields, e.g., /PN, <<<
>>>  /PK, etc.                                                         <<<

>>>  USPATFULL and USPAT2 can be accessed and searched together        <<<
>>>  through the new cluster USPATALL.  Type FILE USPATALL to          <<<
>>>  enter this cluster.                                               <<<
>>>                                                                    <<<
>>>  Use USPATALL when searching terms such as patent assignees,       <<<
>>>  classifications, or claims, that may potentially change from      <<<
>>>  the earliest to the latest publication.                           <<<

This file contains CAS Registry Numbers for easy and accurate
substance identification.

=> D HIS

     (FILE 'HOME' ENTERED AT 09:06:16 ON 09 JUL 2003)

     FILE 'USPATFULL' ENTERED AT 09:06:25 ON 09 JUL 2003
L1           890 S UV (W) PROTECTION
```

```
L2            49 S L1 AND FLAVON?
L3            31 S L2 AND SUNSCREEN
L4             3 S L3 AND PD<2000
L5             0 S L3 AND COMPLEX AND CITRIC AND AMINOCARBOXYLIC
L6             0 S L3 AND COMPLEX AND CITRIC AND ETHYLENEDIAMINETETRAACETIC
L7             0 S L3 AND COMPLEX AND ETHYLENEDIAMINETETRAACETIC
L8             0 S L3 AND ETHYLENEDIAMINETETRAACETIC

     FILE 'USPATFULL' ENTERED AT 09:17:14 ON 09 JUL 2003

=> S L2 AND PD<2000
       2606647 PD<2000
                 (PD<20000000)
L9             9 L2 AND PD<2000

=> D L9 1-9 BIB, TI,AB

L9   ANSWER 1 OF 9  USPATFULL
AN      2003:109196  USPATFULL
TI      Fractionation process
IN      Alander, Jari, Karlshamn, SWEDEN
        Andersson, Ann-Charlotte, Karlshamn, SWEDEN
        Malmros, H.ang.kan, Karlshamn, SWEDEN
        Nilsson, Jorgen, Asarum, SWEDEN
PA      Karlshamns AB, Karlshamn, SWEDEN (non-U.S. corporation)
PI      US 6552208          B1   20030422
        WO 9963031  19991209                                          <--
AI      US 2001-701392           20010118 (9)
        WO 1999-SE945            19990601
PRAI    SE 1998-1955         19980602
DT      Utility
FS      GRANTED
EXNAM   Primary Examiner: Carr, Deborah D.
LREP    Oblon, Spivak, McClelland, Maier & Neustadt, P.C.
CLMN    Number of Claims: 24
ECL     Exemplary Claim: 1
DRWN    0 Drawing Figure(s); 0 Drawing Page(s)
LN.CNT 1126
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
TI      Fractionation process
AB      The invention refers to a process for fractionating a vegetable oil
        giving one or more solid fractions suitable for confectionary
        applications as well as a liquid fraction rich in unsaponifiable
        biologically active components. The liquid fractions of shea butter and
        rapeseed oil having a high content of phytosterols and tocoferols,
        respectively, are useful for cosmetical and pharmaceutical preparations.

L9   ANSWER 2 OF 9  USPATFULL
AN      2002:152185  USPATFULL
TI      Composition comprising one or more flavonoids, method of
        obtaining such composition and use thereof as UV-absorbing agent
IN      Plaschke, Kim, N.ae butted.stved, DENMARK
PA      Flavone Sunproducts A/S, Naestved, DENMARK (non-U.S. corporation)
PI      US 6409996          B1   20020625
        WO 9925316  19990527
AI      US 2000-554763           20000519 (9)
        WO 1998-DK505            19981119
                                 20000519  PCT 371 date
PRAI    DK 1997-1316         19971119
DT      Utility
FS      GRANTED
EXNAM   Primary Examiner: Dees, Jose' G.; Assistant Examiner: Lamm, Marina
```

LREP Dykema Gossett PLLC
CLMN Number of Claims: 27
ECL Exemplary Claim: 1
DRWN 4 Drawing Figure(s); 4 Drawing Page(s)
LN.CNT 958
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
TI Composition comprising one or more **flavonoids**, method of obtaining such composition and use thereof as UV-absorbing agent
AB A **flavonoid**-containing sunscreen composition having UV absorbency at 282 nm in water contains at least one flavanone and at least one **flavone**, the flavanone providing 75 to 98% of the UV absorbency at 282 nm and the **flavone** providing 2 to 25% of the absorbency at 282 nm. The composition is formed of **flavonoids** extracted from citrus fruit using water, and separating the extracted **flavonoids** using a sorbent material, and then recovering the **flavonoids** from the sorbent material using a solvent.

L9 ANSWER 3 OF 9 USPATFULL
AN 1999:159946 USPATFULL
TI UV stable microbial insecticides, methods of making, methods of using
IN Felton, Gary W., Fayetteville, AR, United States
PA The Board of Trustees of the University of Arkansas, Little Rock, AK, United States (U.S. corporation)
PI US 5998330 19991207 <--
AI US 1997-803670 19970221 (8)
PRAI US 1996-13586P 19960223 (60)
DT Utility
FS Granted
EXNAM Primary Examiner: Caputa, Anthony C.; Assistant Examiner: Masood, Khalid
LREP Gilbreth, J. M. (Mark), Strozier, Robert W.Gilbreth & Strozier, P.C.
CLMN Number of Claims: 11
ECL Exemplary Claim: 1
DRWN 1 Drawing Figure(s); 1 Drawing Page(s)
LN.CNT 387
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
TI UV stable microbial insecticides, methods of making, methods of using
AB A method of treating vegetation by application of a microbial insecticide in which a quinone has been covalently bonded to the viral occlusion body surface of the microbial insecticide in order to improve the UV stability of the microbial insecticide by forming a protective shield around the pathogen.

L9 ANSWER 4 OF 9 USPATFULL
AN 1998:24908 USPATFULL
TI Waterproof cosmetic or dermatological photoprotective preparations
IN Gers-Barlag, Heinrich, Kummerfeld, Germany, Federal Republic of
Hachmann, Stefan, Norderstedt, Germany, Federal Republic of
Nissen, Bente, Hamburg, Germany, Federal Republic of
Schultz, Sabine, Hamburg, Germany, Federal Republic of
PA Beiersdorf AG, Hamburg, Germany, Federal Republic of (non-U.S. corporation)
PI US 5725844 19980310 <--
WO 9417780 19940818 <--
AI US 1995-495643 19951127 (8)
WO 1994-EP257 19940129
19951127 PCT 371 date
19951127 PCT 102(e) date
PRAI DE 1993-4303983 19930211
DE 1993-4342719 19931215
DT Utility
FS Granted
EXNAM Primary Examiner: Dodson, Shelley A.

LREP Sprung Kramer Schaefer & Briscoe
CLMN Number of Claims: 14
ECL Exemplary Claim: 1
DRWN No Drawings
LN.CNT 653
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
TI Waterproof cosmetic or dermatological photoprotective preparations
AB Water-resistant cosmetic or dermatological light protection formulations in the form of O/W emulsions or hydrodispersions, comprising

one or more cosmetically or pharmaceutically acceptable hydrophobic inorganic pigments, these pigments being incorporated into the oily phase of the emulsions or hydrodispersions,

one or more cosmetically or pharmaceutically acceptable oil-soluble UV filter substances,

one or more film-forming agents

and furthermore, comprising, if appropriate,

one or more cosmetically or pharmaceutically acceptable water-soluble UV filter substances

one or more substances chosen from the group consisting of the customary cosmetic or dermatological active compounds, auxiliaries and/or additives

in a customary cosmetic or pharmaceutical carrier.

L9 ANSWER 5 OF 9 USPATFULL
AN 97:31734 USPATFULL
TI Active compound combinations having a content of glyceryl alkyl ethers and cosmetic and dermatological formulations comprising such active compound combinations
IN Sch onrock, Uwe, Norderstedt, Germany, Federal Republic of
Degwert, Joachim, Tostedt, Germany, Federal Republic of
Steckel, Friedhelm, Hamburg, Germany, Federal Republic of
PA Beiersdorf Aktiengesellschaft, Hamburg, Germany, Federal Republic of (non-U.S. corporation)
PI US 5621012 19970415 <--
AI US 1995-457770 19950601 (8)
PRAI DE 1994-4420625 19940614
DT Utility
FS Granted
EXNAM Primary Examiner: Dodson, Shelley A.
LREP Sprung Horn Kramer & Woods
CLMN Number of Claims: 9
ECL Exemplary Claim: 1
DRWN No Drawings
LN.CNT 769
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
TI Active compound combinations having a content of glyceryl alkyl ethers and cosmetic and dermatological formulations comprising such active compound combinations
AB Active compound combinations comprising active contents of

(a) one or more glycerol ethers of saturated and/or unsaturated, branched and/or unbranched aliphatic alcohols having 12 to 24 carbon atoms,

(b) bisabolol and/or panthenol

(c) and if appropriate one or more substances chosen from the group consisting of cosmetically or dermatologically acceptable antioxidants.

L9 ANSWER 6 OF 9 USPATFULL
AN 96:118331 USPATFULL
TI Benzazole compounds with ESIPT fluorescence
IN Kauffman, Joel M., Wayne, PA, United States
Litak, Peter T., Lansdowne, PA, United States
PA Philadelphia College of Pharmacy and Science, Philadelphia, PA, United States (U.S. corporation)
PI US 5587112 19961224 <--
AI US 1994-300401 19940902 (8)
DT Utility
FS Granted
EXNAM Primary Examiner: Tucker, Philip
LREP Breneman, Georges & Krikelis
CLMN Number of Claims: 21
ECL Exemplary Claim: 1
DRWN 4 Drawing Figure(s); 4 Drawing Page(s)
LN.CNT 1494
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
TI Benzazole compounds with ESIPT fluorescence
AB A new class of proton transfer, benzazole, fluorescent compounds is composed of a 2-benzazolyl moiety covalently bonded to an aromatic fused ring heterocyclic moiety. The 2-benzazolyl moiety may be a 2-benzoxazolyl, 2-benzothiazolyl, or 2-benzimidazolyl. The aromatic fused ring heterocyclic moiety may be a 3-dibenzofuranyl or 3-dibenzothiophenyl each substituted at the 2 position with a proton donating group, or a 2-carbazolyl substituted at the 3 position with a proton donating group. The proton donating group may be hydroxy, sulfonamido, carbonamido, and the like, and preferably is hydroxy. The fluors are soluble in organic matrix materials such as solvents, monomers, resins, polymers, and the like. The UV-excited fluors emit short-lived fluorescence at .gtoreq.520 nm and may be used in the manufacture of fluorescent coatings, objects, scintillators, light sources and the like. The fluors are particularly useful for radiation-hard, solid scintillators for the detection and measurement of high energy particles and radiation and for UV filter materials.

L9 ANSWER 7 OF 9 USPATFULL
AN 94:9522 USPATFULL
TI Genetic engineering of novel plant phenotypes
IN Jorgensen, Richard A., Davis, CA, United States
Napoli, Carolyn A., Davis, CA, United States
PA DNA Plant Technology Corporation, Mt. Kisco, NY, United States (U.S. corporation)
PI US 5283184 19940201 <--
AI US 1991-687550 19910417 (7)
DCD 20100727
RLI Continuation-in-part of Ser. No. US 1990-501076, filed on 29 Mar 1990 And a continuation-in-part of Ser. No. US 1989-331338, filed on 30 Mar 1989, now patented, Pat. No. US 5034323
DT Utility
FS Granted
EXNAM Primary Examiner: Chereskin, Che S.
LREP Townsend and Townsend Khourie and Crew
CLMN Number of Claims: 31
ECL Exemplary Claim: 1
DRWN 3 Drawing Figure(s); 4 Drawing Page(s)
LN.CNT 2075
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

TI Genetic engineering of novel plant phenotypes
AB Methods are provided for producing plants exhibiting one or more desired phenotypic traits. In particular, transgenotes are selected that comprise a DNA segment operably linked to a promoter, wherein transcription products of the segment are substantially homologous to corresponding transcripts of endogenous **flavonoid** biosynthetic pathway genes.

L9 ANSWER 8 OF 9 USPATFULL
AN 93:61029 USPATFULL
TI Genetic engineering of novel plant phenotypes
IN Jorgensen, Richard A., Oakland, CA, United States
Napoli, Carolyn A., Oakland, CA, United States
PA DNA Plant Technology Corporation, Oakland, CA, United States (U.S. corporation)
PI US 5231020 19930727 <--
AI US 1990-501076 19900329 (7)
DCD 20080723
RLI Continuation-in-part of Ser. No. US 1989-331338, filed on 30 Mar 1989, now patented, Pat. No. US 5034323
DT Utility
FS Granted
EXNAM Primary Examiner: Chereskin, Che S.
LREP Townsend and Townsend
CLMN Number of Claims: 30
ECL Exemplary Claim: 1
DRWN 2 Drawing Figure(s); 2 Drawing Page(s)
LN.CNT 1757
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
TI Genetic engineering of novel plant phenotypes
AB Methods are provided for producing plants exhibiting one or more desired phenotypic traits. In particular, transgenotes are selected that comprise a DNA segment operably linked to a promoter, wherein transcription products of the segment are substantially homologous to corresponding transcripts of endogenous **flavonoid** biosynthetic pathway gene

L9 ANSWER 9 OF 9 USPATFULL
AN 91:58866 USPATFULL
TI Genetic engineering of novel plant phenotypes
IN Jorgensen, Richard A., Oakland, CA, United States
Napoli, Carolyn A., Oakland, CA, United States
PA DNA Plant Technology Corporation, Oakland, CA, United States (U.S. corporation)
PI US 5034323 19910723 <--
AI US 1989-331338 19890330 (7)
DT Utility
FS Granted
EXNAM Primary Examiner: Weimar, Elizabeth C.; Assistant Examiner: Chereskin, Che S.
LREP Townsend and Townsend
CLMN Number of Claims: 5
ECL Exemplary Claim: 2
DRWN 1 Drawing Figure(s); 2 Drawing Page(s)
LN.CNT 1162
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
TI Genetic engineering of novel plant phenotypes
AB Methods are provided for producing plants exhibiting one or more desired phenotypic traits. In particular, transgenotes are selected that comprise a DNA segment operably linked to a promoter, wherein transcription products of the segment are substantially homologous to corresponding transcripts of endogenous **flavonoid** biosynthetic

pathway genes.

=> D L9 2,4,5 KWIC

L9 ANSWER 2 OF 9 USPATFULL
TI Composition comprising one or more **flavonoids**, method of obtaining such composition and use thereof as UV-absorbing agent
PI US 6409996 B1 20020625
WO 9925316 19990527
AB A **flavonoid**-containing sunscreen composition having UV absorbency at 282 nm in water contains at least one flavanone and at least one **flavone**, the flavanone providing 75 to 98% of the UV absorbency at 282 nm and the **flavone** providing 2 to 25% of the absorbency at 282 nm. The composition is formed of **flavonoids** extracted from citrus fruit using water, and separating the extracted **flavonoids** using a sorbent material, and then recovering the **flavonoids** from the sorbent material using a solvent.
SUMM The present invention relates to a composition that contains one or more **flavonoids**, a method of obtaining such composition, and the use thereof as UV-absorbing agent, i.e., for producing a sunscreen product.
SUMM In the art of sunscreen production it has been found that **flavonoids** may be used in order to enhance absorption of UV-radiation.
SUMM The abstract of Japanese document JP-55-111411-A discloses the use of **flavonol** in cosmetics for the purpose of protecting against sunburn.
SUMM Another effort to use a **flavonoid** as a sun protecting agent is disclosed in Japanese patent abstract JP-63-96120A, which describes an anti-suntan cosmetic including i.a. a **flavone** derivative and/or a coumarine. Unfortunately, coumarines are known to be skin irritating and are generally an unwanted substance in products. . .
SUMM . . . the article "Orange Peel Wax", Cosmetics & Toiletries magazine vol. 109, august 1994, that the wax extracted from oranges comprises **flavonoids**, carotenoids and unsaturated monoesters, and that these compounds have strong UV-absorptive properties.
SUMM . . . cosmetic and/or dermatological composition for preventing harmful effects on human skin due to UV-radiation. The composition comprises one or more **flavonoids** or their glucosides and preferably also both a cinnamon acid derivative and an anti oxidizing agent such as vitamin E. The **flavonoids** can, according to WO 96/18382, be obtained as various plant extracts, and are preferably **flavonones**, e.g., naringin and hesperidin.
SUMM . . . stinging or sensible skin. The composition is essentially the same as disclosed in WO 96/18382 and comprises one or more **flavonoid** components optionally combined with a cinnamon acid derivative and an anti oxidizing agent.
SUMM This object is obtained by the composition according to the invention characterized in that it includes at least one **flavonone** and at least one **flavone** and having an UV-absorbency at 282 nm in water where the flavanone(s) accounts for 75-98% of the **flavonoids** absorbency, and where the **flavone**(s) accounts for 2-25% of the **flavonoids** UV-absorbency at 282 nm in the composition.
SUMM This first aspect of the invention is based on the recognition that flavanones are particularly effective as UV-B-filters and **flavones** are particularly effective as UV-A-filters, and the recognition that a particularly advantageous composition of flavanones and **flavones** exists, where said composition of **flavonoids** has an absorbency profile in terms of UV-radiation at specific wavelengths, which profile matches the degradation profile of human skin. . .

SUMM . . . surprisingly been found that this criterion is met by a composition comprising at least one flavanone and at least one **flavone**, in which composition the flavanone part preferably represents about 75-98% of the **flavonoids** UV-absorbency in water at 282 nm, and the **flavone** part preferably represents about 2-25% of the **flavonoids** UV-absorbency in water at 282 nm.

SUMM The term "**flavonoids** UV-absorbency" designates the total amount of UV-absorbency caused by the **flavonoids** in the composition.

SUMM Preferably the flavanones account for 78-90% of the absorbency and the **flavones** account for 2-10% of the **flavonoids** absorbency in water at 282 nm, and more preferably the flavanones account for 80-85% of the absorbency and the **flavones** account for 3-5% of the **flavonoids** absorbency in water at 282 nm.

SUMM . . . be provided by the same and/or other substances, e.g., carotenoids; however, this further absorbency is preferably provided substantially by other **flavonoids**, and even more preferably substantially by flavanones, flavanoles and/or **flavones**.

SUMM . . . preferred embodiment of the composition according to the invention the composition comprises at least one flavanone and at least one **flavone**, where said flavanone(s) accounts for 75-98% of the **flavonoids** absorbency, and where said **flavone**(s) accounts for 2-25% of the **flavonoids** UV-absorbency at 282 nm in an aqueous solution of the composition.

SUMM This particularly advantageous ratio between flavanone and **flavone** is obtained when the respective absorbency at 282 nm for flavanone and **flavone** is as disclosed above.

SUMM It is furthermore, preferable if the ratio between flavanones and **flavones** in dry weight (solids content) is around between 50:1 to 2:1, more preferable around 30:1 to 5:1 and even more. . .

SUMM . . . be accomplished by a composition of flavanoids and particularly defined as comprising at least one flavanone and at least one **flavone**, which composition is characterized in that the **flavonoids** have a UV-absorption profile in water in the wavelength range 270-360 nm and at a total **flavonoid** concentration of 20-30 .mu.g/ml, preferably about 25 .mu.g/ml, said profile substantially falling within the +/-30% limits of the profile in. . .

SUMM Said composition of **flavonoids** preferably comprise at least one flavanone-based and at least one **flavone**-based compound selected from naringin (naringenin-7.beta.-neohesperidoside; 5,7,4'-trihydroxyflavanone-7.beta.-neohesperidoside) and/or neohesperidin (hesperitin-7.beta.-neohesperidoside; 5,7,3'-trihydroxy-4'-methoxyflavanone-7.beta.-neohesperidoside) and/or neoeriocitrin (eriodictyol-7.beta.-neohesperidoside; 5,7,3',4'-tetrahydroxyflavanone-7.beta.-neohesperidoside) and/or isonaringin (isonaringenin-7.beta.-neohesperidoside; 5,7,4'-trihydroxyisoflavanone-7.beta.-neohesperidoside) and rhoifolin (apigenin-7.beta.-neohesperidoside; 4',5,7-trihydroxyflavone-7.beta.-neohesperidoside) and/or luteolin-7.beta.-neohesperidoside (5,7,3',4'-tetrahydroxyflavone-7.beta.-neohesperidoside and/or veronicastroside) and/or neodiosmin (5,7,3'-trihydroxy-4'-methoxyflavone-7.beta.-neohesperidoside). Other known flavanones and **flavones**, e.g. those mentioned in "The flavanoids, Advances in research since 1986", J. B. Harborne, Chapman & Hall 1.sup.st ed. 1994. . .

SUMM It has been found that the particularly advantageous UV-absorption profile may be obtained by a composition comprising the **flavonoids** naringin, neohesperidin, neoeriocitrin, isonaringin and rhoifolin. Particularly compositions comprising a flavanone having substantially the absorption profile of naringin or neohesperidin and a **flavone** having substantially the absorption profile of rhoifolin

are preferred. Naringin or neohesperidin being the most preferred flavanone(s) and rhoifolin being the most preferred **flavone**. Rhoifolin has proven to be particularly advantageous to apply in order to obtain a suitable absorption profile also in the. . .

SUMM According to a preferred embodiment of the composition according to the invention, each of the above mentioned **flavonoids** account for an amount of the UV-absorption of the composition at 282 nm in water corresponding to naringin and/or neohesperidin:. . .

SUMM A preliminary clinical test conducted on 8 persons at a dermatological clinic indicated the following: A concentration of the **flavonoid** product in a UV-neutral cream of 0.75%-1% equaled a sun protection factor of 4 (DIN standard). A concentration of the **flavonoid** product in a UV-neutral cream 1.5% equaled a sun protection factor of 8 (DIN standard).

SUMM When determining the absorbency of a composition comprising **flavonoids** according to the invention, it is preferred that the concentration of the composition is adjusted in such a way that. . . more preferable the absorbencyis measured within a concentration range where the absorbency is linear dependent on the concentration of the **flavonoids** in the composition. This is typically the case in the absorbency range up till about 1. The sample may be. . .

SUMM **Flavonoids** are generally very suitable as sunscreen agents because they, apart from their UV-absorbency, are both non-toxic and extremely stable. Many. . .

SUMM The present invention also relates to dermatological applicable products, e.g. a sunscreen product, comprising a composition of **flavonoids** according to the invention and further excipients. These excipients comprising all generally known components in the art of producing sun. . .

SUMM . . . amount of these in order to obtain a certain absorption. However, it is generally preferable to use the composition of **flavonoids** according to the invention as substantially the only essential UV-absorbing agents in sun screen products, i.e. without cinnamon acid derivatives,. . .

SUMM It is a further object of the present invention to provide a process for the preparation of a composition of **flavonoids** having the above mentioned advantageous properties.

SUMM It is generally known to extract **flavonoids** from various plant material and several processes for obtaining the **flavonoids** has been suggested. However, it seems that no known process provides a composition as suggested above per se.

SUMM Furthermore, it seems that if substantially pure **flavones** and flavanones are mixed in water, their solubility is far less than desirable for suitable application as UV-absorbers in water. . .

SUMM The article "Anti-erythematous and photoprotective activities in guinea pigs and in man of topically applied **flavonoids** from Helicrysum Italicum G. Don.", Acta Therapeutica 14 (1988), discloses the use of **flavonoids** as a means to avoid or treat erythematous skin. Furthermore the article discloses a method of extracting **flavonoids** from the plant "Helicrysum Italicum G. Don" using dried leaves from the plant. The leaves are milled and percolated in. . . subjected to solid-phase chromatography elution using petroleum ether. Further elution using n-hexane removes lipophilic substances and the fraction comprising the **flavonoids** is obtained from the column by elution using ethyl-acetate, which is subsequently evaporated using vacuum.

SUMM Chemical abstracts vol. 127, no. 17, 238967m, discloses a process for extracting the total amount of **flavone** from ginko biloba leaves. The process comprises extraction of **flavonoids** from dried ginko biloba leaves with methanol and purification using the polycarboxyl ester resin XAD-7 from a water/methanol mixture. The abstract also discloses that the pH did not effect the adsorption of the

flavonoids, but at high pH the chemical structure of the **flavonoids** was changed. Also the polarity of the solvent is discussed.

SUMM . . . to environmental reasons it is generally undesirable to use large quantities of organic solvents such as methanol for extracting the **flavonoids** at industrial scale levels.

SUMM . . . oils. This i.a. being due to undesirable side-effects of many such organic solvents. By using organic solvents for extracting the **flavonoids** as disclosed above, also unwanted and/or toxic substances are extracted. It is thus necessary to apply a costly purification step in order to obtain an applicable **flavonoid** fraction.

SUMM However, it appears that a **flavonoids** obtained by the highly basic extraction of **flavonoids** suggested in U.S. Pat. Nos. 2,421,061 and 2,442,110 have a very low solubility.

SUMM . . . means of hot water and purifying the naringin through ultrafiltration and resin adsorption. However, ultrafiltration also seems to impair the **flavonoids** solubility significantly.

SUMM Chemical abstracts vol. 126, no. 9, 119332v, discloses a process for extracting the total amount of **flavone** from ginko biloba leaves. The process comprises repeated extraction with water and purification through chromatography using a polyamide resin as adsorbent and ethanol as eluent. This process only extracts the **flavone** content of the ginko biloba and is both slow and troublesome.

SUMM Unfortunately, neither the **flavonoid**-containing orange peel wax discussed in the introduction nor the **flavonoid**-containing fractions obtained by the above mentioned methods exhibit sufficient solubility in water for practical application of the **flavonoids** as an active substance in a substantially water-based cosmetic product, i.e. as a sunscreen agent.

SUMM . . . object of the present invention to overcome the stated problems and to obtain a method of preparing a composition of **flavonoids** suitable for use as an active ingredient in a sunscreen product and being sufficiently soluble in water to enable the. . .

SUMM These objects are obtained by the method according to the invention, wherein a **flavonoid** containing raw material is treated with an extraction medium to obtain an extract and wherein said composition is separated from. . .

SUMM a) extracting the **flavonoids** by means of an aqueous medium at a temperature between 20 and 60.degree. C. and at a pH at or. . .

SUMM b) separating the **flavonoids** from the extract by adsorption or absorption by means of a sorbent-material at a pH below 7, and

SUMM c) obtaining the **flavonoids** from the sorbent-material by means of a solvent.

SUMM It has surprisingly been found that the **flavonoids** may be extracted directly from the **flavonoid**-containing raw material using water or a substantially aqueous medium as the extraction medium and that the **flavonoid**-comprising fraction may be separated from the thus obtained aqueous extract in an advantageously both gentle and efficient manner using adsorption. . .

SUMM The extraction may be performed in any way that enables the **flavonoids** of the raw material to migrate to the extraction medium, e.g. it may be performed as a percolation step, by. . .

SUMM . . . 6 and more preferably around 2 to 5. Within this range it is possible to obtain the desired composition comprising **flavonoids** using the method according to the invention.

SUMM . . . pH of the extraction medium and/or the extract may as mentioned be adjusted, and at some pH-values some of the **flavonoids** may crystallize. According to the invention it is preferred to keep the **flavonoids** solubilized in the extract at any time up till the absorption/adsorption and the pH-value of the extract should be adjusted accordingly. Within the above mentioned pH-range no precipitation of

flavonoids are observed by the method according to the invention.

SUMM The **flavonoid** fraction may be separated from the extraction medium by any known adsorption and/or absorption method, e.g., by bringing the extract. . .

SUMM According to a preferred embodiment of the method according to the invention the extract comprising the **flavonoid**(s) is subjected to a solid-phase adsorption and/or absorption using a sorbent comprising separation reactor, in which the **flavonoid** fraction is adsorbed to and/or absorbed by the sorbent-material. During the separation step, it is preferred to stir the content. . .

SUMM As sorbent-material may be used any sorbent-material capable of retaining the desired **flavonoid**-containing fraction. Preferably the sorbent-material is a non-ionic polymeric adsorbent, e.g. a cross-linked moderately polar acrylic ester polymer. This type of sorbent-material has proven to have a particularly suitable affinity towards the desired **flavonoids**, and an advantageous low affinity towards unwanted substances.

SUMM . . . the sorbent-material substantially has an approximate average pore diameter of about 80-100 .ANG., more preferably around 85-95 .ANG.. The desired **flavonoids** are estimated to have sizes around 20-40 .ANG.. However, using a sorbent-material having too small a pore size results in a too slow absorption or even an exclusion of the **flavonoids**. Using too large a pore size will result in too many unwanted substances in the final product.

SUMM This specific combination of specifications has proven particularly suitable for extracting **flavonoids** from a substantially aqueous medium according to the invention.

SUMM . . . to the raw material, extraction medium and/or the extract. However, the use of enzymes tend to decrease the yield of **flavonoids**.

SUMM . . . and to remove it from the sorbent material, e.g. by one of the above disclosed methods, after removal of the **flavonoid** fraction.

SUMM The separated **flavonoid** fraction may be extracted from the sorbent-material using various, preferably relatively polar, solvents, e.g. water mixed with acetonitrile and trichloro. . .

SUMM Ethanol has proven to be particularly suitable for extracting the **flavonoid** composition from the sorbent-material, in terms of effectiveness.

SUMM . . . any ratio and is advantageously also relatively non-toxic and thus acceptable in a wide range of products in which the **flavonoid** composition in question is applicable. Another advantage of using ethanol is, that ethanol is easily evaporated, thus reducing cost of. . .

SUMM Accordingly the ethanol-phase may subsequently be evaporated to obtain a **flavonoid**/ethanol composition of the desired concentration or even completely evaporated to dry state. Evaporated and/or destilled-off ethanol may further be condensed. . .

SUMM An even further advantage of the method according to the invention is that the resulting **flavonoid** fraction is significantly more soluble in water than corresponding fractions obtained by the prior art methods.

SUMM It is believed that this latter effect is at least partly due to the fact that naturally occurring water soluble **flavonoids** preferably comprises a glucoside moiety. When subjecting naturally occurring **flavonoids** to the rather rough treatment of the prior art methods, some of the glucoside-bonds might decompose rendering the **flavonoid** moiety less soluble in water.

SUMM The method according to the invention seems to prevent the glucoside-bonds from decomposing, thus resulting in a **flavonoid** composition having significantly higher solubility in water, than

flavonoids obtained by the prior art method.

SUMM . . . further believed that the increased solubility in water is at least partly caused by a synergistic effect between the specific **flavonoids** obtainable by the method according to the invention and/or between the **flavonoids** and other substances present in the thus obtained composition.

SUMM . . . range, and at a certain pH, a single adsorption/absorption step on the substantially aqueous extract and a retrieval of the **flavonoids** by preferably ethanol, seems to facilitate to production of particularly water soluble **flavonoids**.

SUMM Furthermore, the process according to the invention seems per se to provide a **flavonoid** fraction having a more suitable UV-absorption profile for use as an active ingredient in sun screen agents than **flavonoids** obtainable by the prior art methods and starting from the same raw material.

SUMM The **flavonoid** containing raw material is preferably chopped or milled before the treatment with the extraction medium.

SUMM As raw material for the process, all **flavonoid** comprising material may be used. Naturally it is preferred to use material containing a substantial amount of **flavonoid**.

SUMM Citrus fruits are known to comprise a substantial amount of **flavonoids** and accordingly it is preferred to use citrus fruits as raw-material for the method according to the invention. Examples of. . .

SUMM . . . to comprise a substantial amount of skin-irritating substances, e.g. D-limonen, these substances are substantially not comprised in the composition comprising **flavonoids** obtainable according to the method.

SUMM The invention also relates to a composition of **flavonoids** obtainable by the method according to the invention. When using citrus fruits as raw material the entire fruit or any. . .

SUMM . . . raw material for the method according to the invention. Citrus Aurantium has surprisingly been found to contain higher levels of **flavonoids** than most other known citrus fruits and is thus a particularly advantageous raw material in terms of amounts of obtainable **flavonoids**.

SUMM It has been found that the ratio between size and level of **flavonoid** in Citrus Aurantium is most advantageous when the fruit is around 2.5-4 cm in diameter, preferably around 3-3.5 cm in. . .

SUMM Even further it has surprisingly been found that the composition of **flavonoids** derivable from Citrus Aurantium using the method according to the invention is particularly soluble in water.

SUMM . . . in particular by the method according to the invention, thus resulting in a significantly higher solubility in water of the **flavonoids** comprised in the composition relative to other compositions of **flavonoids**.

SUMM When extracting **flavonoids** from citrus fruits and in particular Citrus Aurentium in an aqueous medium as disclosed above it has proven advantageous to. . .

SUMM It has furthermore, surprisingly been found that the absorption-curve of the composition of naturally occurring **flavonoids** found in Citrus Aurantium fruits substantially anticipates the degradation-curve of DNA subjected to the suns UV-light. This is particularly the. . .

SUMM Accordingly it seems that the composition of **flavonoids** derived from Citrus Aurantium in particular by the method according to the invention has per se the particularly advantageous absorbency. . .

SUMM Therefore it is a particularly preferred embodiment of the composition according to the invention that the composition of **flavonoids** is prepared from Citrus Aurantium. Furthermore, it is a particularly preferred embodiment of the process according to the invention that. . .

SUMM The invention also relates to the use of **flavonoid** containing extracts from Citrus Aurentium as a UV-absorbing ingredient in a sun screen product.

SUMM By means of the composition comprising **flavonoids** according to the invention it is possible to obtain sunscreen products having superior properties than prior art sunscreen products, in terms of both efficient **UV-protection** of skin-cell DNA and general skin-healthcare.

SUMM Accordingly the invention also relates to the use of the composition comprising **flavonoids** according to the invention as a sun screen agent.

SUMM The invention further relates to a sunscreen product comprising the composition of **flavonoids** according to the invention and further excipients.

SUMM The term **flavonoid** as used herein designates all substances based on **flavonol**, **flavone**, and flavanone and their derivatives, e.g. their iso-derivatives and their glucosides. Such **flavonoids** comprises e.g. naringin (naringenin-7.beta.-neohesperidoside; 5,7,4"-trihydroxyflavanone-7.beta.-neohesperidoside), neohesperidin (hesperitin-7.beta.-neohesperidoside; 5,7,3'-trihydroxy-4'-methoxyflavanone-7.beta.-neohesperidoside), neoeriocitrin (eriodictyol-7.beta.-neohesperidoside; 5,7,3',4'-tetrahydroxyflavanone-7.beta.-neohesperidoside), isonaringin (isonaringenin-7.beta.-neohesperidoside; 5,7,4'-trihydroxyisoflavanone-7.beta.-neohesperidoside), rhoifolin (apigenin-7.beta.-neohesperidoside; 4',5,7-trihydroxyflavone-7.beta.-neohesperidoside), luteolin-7.beta.-neohesperidoside (5,7,3',4'-tetrahydroxyflavone-7.beta.-neohesperidoside, veronicastroside),. . .

DETD FIG. 1 illustrates a preferred UV-absorption curve 1 profile for an aqueous composition comprising **flavonoids** according to the invention and at a total **flavonoid** concentration of 25 .mu.g/ml. Preferred 20% (2 and 2') and 30%-interval (3 and 3') limits are drafted relative to the preferred UV-absorption curve profile. The preferred UV-absorption curve profile is a typical UV-absorption curve for the composition of **flavonoids** obtainable from Citrus Aurantium by the method according to the invention.

DETD . . . the absorption curve in FIG. 1, it substantially anticipates the degradation curve in FIG. 2. Accordingly the aqueous composition of **flavonoids** according to the invention is extremely suitable as an active component in a sunscreen product, in terms of protecting at. . .

DETD The extract in terms of **flavonoid** enriched extraction medium E enters continuously the separation reactor 6 through a filter unit 5 comprising a valve, in which. . .

DETD Through the filter unit 12 comprising a valve an amount of solvent corresponding to the amount of **flavonoid** enriched solvent I entering the reactor 10 is continuously transferred to an evaporator 13, where the solvent is heated by. . .

DETD When the equilibrium of **flavonoids** in the extract is reached the extract E is transferred to a sorbent containing separation reactor 6 through a filter. . .

DETD When the equilibrium of **flavonoids** in the extract in the separation reactor 6 is reached the used extraction medium is removed through the filter unit. . .

DETD . . . the reactor 6, and the content of the reactor is stirred using a stirrer (not shown). When the equilibrium of **flavonoids** in the solvent in the separation reactor 6 is reached the **flavonoid** enriched solvent I is transferred to an evaporator 13, where the solvent is heated by means of a temperature control. . .

DETD The thus obtained extract in terms of **flavonoid** enriched extraction medium is led to a 5000 l separation reactor at a rate of about 50 l/min through a. . .

DETD . . . corresponding the incoming amount of sorbent-material is returned from the elution reactor to the separation reactor, and an amount of **flavonoid** enriched ethanol corresponding to the incoming amount of ethanol is led from the elution reactor to an evaporator.

DETD The about 2500 kg Citrus Aurantium results in about 35-40 kg pulverous composition comprising **flavonoids** or a corresponding amount of solubilized composition in ethanol at any desired concentration.

DETD . . . for UV-absorption. At UV-absorption equilibrium (when the UV-absorption at 282 nm no longer rises significantly), the extract in terms of **flavonoid** enriched extraction medium is led to a 30000 l separation reactor through a filter unit, in which reactor the extract. . .

DETD An amount of 25000 l ethanol is led to the separation reactor as a solvent for the **flavonoid** comprising composition. The content of the reactor is stirred, and solvent samples are continuously tested for UV-absorption. At UV-absorption equilibrium (when the UV-absorption at 282 nm no longer rises significantly), the **flavonoid** enriched solvent is led to an evaporator in which the solvent is evaporated and the product is concentrated to obtain about 35-40 kg pulverous composition comprising **flavonoids** or a corresponding amount of solubilized composition in ethanol at any desired concentration.

CLM What is claimed is:

1. A composition comprising **flavonoids** including at least one flavanone selected from the group consisting of naringin, neohesperidin, neoeriocitrin and isonaringin, and at least one **flavone** comprising rhoifolin, said composition having a UV-absorbency at 282 nm in water where said at least one flavanone accounts for 75-98% of UV-absorbency of said **flavonoids**, and where **flavones** accounts for 2-25% of UV-absorbency of said **flavonoids** at 282 nm.

. . . to claim 1, wherein the at least one flavanone has an absorption profile substantially as naringin and neohesperidin and the **flavones** have an absorption profile substantially as rhoifolin.

4. A composition according to claim 1, including the **flavonoids** naringin, neohesperidin, neoeriocitrin, isonaringin and rhoifolin.

. . . accounts for 5-15% of the UV-absorption, isonaringin accounts for 1-10% of the UV-absorption and rhoifolin accounts for 1-10% of the **flavonoids** UV-absorption at 282 nm in aqueous solution.

6. A composition comprising one or more **flavonoids**, including at least one flavanone selected from the group consisting of naringin, neohesperidin, neoeriocirin and isonaringin, and at least one **flavone** comprising rhoifolin, said composition having a UV-absorption profile in water in the wavelength range 270-360 nm and at a total **flavonoid** concentration of 25 .mu.g/ml, said profile substantially falling within the +/-30% limits of the profile in FIG. 1.

7. A composition comprising one or more **flavonoids**, including at least one flavanone selected from the group consisting of naringin, neohesperidin, neoeriocirin and isonaringin, and at least one **flavone** comprising rhoifolin, said composition exhibiting an absorption ratio of 1.8-2.4 between the UV-absorption 282 nm and the average UV-absorption at. . .

8. A method of preparing a composition according to claims 1, 6 or 7 comprising **flavonoids**, wherein a **flavonoid** -containing raw material in the form of immature citrus fruit is treated with an extraction medium to obtain an extract from. . . extraction

medium at a temperature between 20 and 60.degree. C. and at a pH at or below 7 to extract **flavonoids** into the extraction medium, b) separating the **flavonoids** from the extraction medium by adsorption or absorption by means of a sorbent-material at a pH below 7, and c) obtaining the **flavonoids** from the sorbent-material by means of a solvent.

20. A method according to claim 8, wherein the composition comprising **flavonoids** is extracted from the sorbent-material using a polar solvent.

21. A method according to claim 8, wherein the composition comprising **flavonoids** is extracted from the sorbent-material using a solvent consisting essentially of ethanol.

26. A sunscreen product comprising a composition of **flavonoids** according to claims 1, 6 or 7.

L9 ANSWER 4 OF 9 USPATFULL
PI US 5725844 19980310 <--
WO 9417780 19940818 <--
SUMM . . . harmful to the skin, since water absorbs light in the UVA and UVB range poorly, and consequently represents no noticeable **UV protection**, not even for submerged areas of skin.
SUMM . . . fytic acid), the various ubiquinones (mitoquinones, coenzyme Q), bile extract, cis- and/or trans-urocanic acid (4-imidazolylacrylic acid), carnosine (N-.beta.-alanyl-L-histidine, ignotine), histidine, **flavones** or **flavonoids**, cystins (3,3'-dithiobis(2-aminopropionic acid)), cystsine (2-amino-3-mercaptopropionic acid) and derivatives thereof (for example N-acetylcysteine), the various carotenes (in particular .beta.-carotene and lycopene. . .

L9 ANSWER 5 OF 9 USPATFULL
PI US 5621012 19970415 <--
SUMM . . . fytic acid), the various ubiquinones (mitoquinones, coenzyme Q), bile extract, cis- and/or transurocanic acid (4-imidazolylacrylic acid), carnosine (N-.beta.-alanyl-L-histidine, ignotine), histidine, **flavones** or **flavonoids**, cystine (3,3'-dithiobis(2-aminopropionic acid)), cysteine (2-amino-3-mercaptopropionic acid) and derivatives thereof (for example N-acetylcysteine), the various carotenes (in particular .beta.-carotene and lycopene. . .
SUMM . . . and dermatological formulations of which the main purpose is not protection from sunlight, but which nevertheless comprise a content of **UV protection** substances. Thus, for example, UVA and UVB filter substances are usually incorporated into day creams.

=> D HIS

(FILE 'HOME' ENTERED AT 09:06:16 ON 09 JUL 2003)

FILE 'USPATFULL' ENTERED AT 09:06:25 ON 09 JUL 2003
L1 890 S UV (W) PROTECTION
L2 49 S L1 AND FLAVON?
L3 31 S L2 AND SUNSCREEN
L4 3 S L3 AND PD<2000
L5 0 S L3 AND COMPLEX AND CITRIC AND AMINOCARBOXYLIC
L6 0 S L3 AND COMPLEX AND CITRIC AND ETHYLENEDIAMINETETRAACETIC
L7 0 S L3 AND COMPLEX AND ETHYLENEDIAMINETETRAACETIC
L8 0 S L3 AND ETHYLENEDIAMINETETRAACETIC

```
     FILE 'USPATFULL' ENTERED AT 09:17:14 ON 09 JUL 2003
L9             9 S L2 AND PD<2000

=> S L2 AND ASCORB?
         44378 ASCORB?
L10         31 L2 AND ASCORB?

=> D L10 1-31

L10  ANSWER 1 OF 31  USPATFULL
AN      2003:180331  USPATFULL
TI      Low-emulsifier or emulsifier-free systems of the oil-in-water type with
        a content of stabilizers and an amino-substituted hydroxybenzophenone
IN      Heidenfelder, Thomas, Dannstadt, GERMANY, FEDERAL REPUBLIC OF
        Wunsch, Thomas, Speyer, GERMANY, FEDERAL REPUBLIC OF
        Andre, Valerie, Ludwigshafen, GERMANY, FEDERAL REPUBLIC OF
PI      US 2003124158       A1   20030703
AI      US 2002-232376      A1   20020903 (10)
PRAI    DE 2001-143964       20010907
DT      Utility
FS      APPLICATION
LN.CNT 2109
INCL    INCLM: 424/401.000
        INCLS: 514/541.000
NCL     NCLM:  424/401.000
        NCLS:  514/541.000
IC      [7]
        ICM: A61K031-24
        ICS: A61K007-00

L10  ANSWER 2 OF 31  USPATFULL
AN      2003:172777  USPATFULL
TI      Cosmetic and dermatological preparations in stick form, comprising an
        amino-substituted hydroxybenzophenone
IN      Heidenfelder, Thomas, Dannstadt, GERMANY, FEDERAL REPUBLIC OF
        Wunsch, Thomas, Speyer, GERMANY, FEDERAL REPUBLIC OF
        Andre, Valerie, Ludwigshafen, GERMANY, FEDERAL REPUBLIC OF
PI      US 2003118621       A1   20030626
AI      US 2002-234203      A1   20020905 (10)
PRAI    DE 2001-143960       20010907
DT      Utility
FS      APPLICATION
LN.CNT 2085
INCL    INCLM: 424/401.000
        INCLS: 514/541.000
NCL     NCLM:  424/401.000
        NCLS:  514/541.000
IC      [7]
        ICM: A61K007-00
        ICS: A61K031-24

L10  ANSWER 3 OF 31  USPATFULL
AN      2003:165537  USPATFULL
TI      Ultra-stable composition comprising moringa oil and its derivatives and
        uses thereof
IN      Brown, James H., Scottsdale, AZ, UNITED STATES
        Kleiman, Robert, Mesa, AZ, UNITED STATES
        Hill, John C., Mesa, AZ, UNITED STATES
PI      US 2003113391       A1   20030619
AI      US 2001-964988      A1   20010926 (9)
RLI     Continuation-in-part of Ser. No. US 2001-917091, filed on 27 Jul 2001,
        PENDING
```

DT Utility
FS APPLICATION
LN.CNT 1230
INCL INCLM: 424/769.000
INCLS: 514/460.000; 514/474.000; 514/560.000
NCL NCLM: 424/769.000
NCLS: 514/460.000; 514/474.000; 514/560.000
IC [7]
ICM: A61K035-78
ICS: A61K031-375; A61K031-35; A61K031-202
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L10 ANSWER 4 OF 31 USPATFULL
AN 2003:158885 USPATFULL
TI Silicone elastomer emulsion cosmetic composition comprising colorant inclusive internal phase
IN Stephens, Alison Fiona, Cookham, UNITED KINGDOM
Jones, Neil John, Staines, UNITED KINGDOM
Sunkel, Jorge Max, Cincinnati, OH, UNITED STATES
Vatter, Michaesl Lee, Okeana, OH, UNITED STATES
PA The Procter & Gamble Company, Cincinnati, OH (non-U.S. corporation)
PI US 2003108498 A1 20030612
AI US 2002-280525 A1 20021025 (10)
PRAI GB 2001-25778 20011026
DT Utility
FS APPLICATION
LN.CNT 1576
INCL INCLM: 424/063.000
INCLS: 424/070.120
NCL NCLM: 424/063.000
NCLS: 424/070.120
IC [7]
ICM: A61K007-021
ICS: A61K007-06; A61K007-11
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L10 ANSWER 5 OF 31 USPATFULL
AN 2003:158880 USPATFULL
TI Extracts from residues left in the production of wine
IN Henry, Florence, Villers-Les-Nacy, FRANCE
Pauly, Gilles, Nancy, FRANCE
Moser, Philippe, Essey-Les-Nancy, FRANCE
PI US 2003108493 A1 20030612
AI US 2002-203732 A1 20020812 (10)
WO 2001-EP1138 20010202
PRAI FR 2000-1753 20000211
DT Utility
FS APPLICATION
LN.CNT 1248
INCL INCLM: 424/059.000
INCLS: 424/766.000; 424/777.000
NCL NCLM: 424/059.000
NCLS: 424/766.000; 424/777.000
IC [7]
ICM: A61K007-42
ICS: A61K035-78
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L10 ANSWER 6 OF 31 USPATFULL
AN 2003:99242 USPATFULL
TI Topical composition comprising an activated, trans-structured cosmetic bonding agent

IN Bekele, Haimanot, Cincinnati, OH, UNITED STATES
Motley, Curtis Bobby, West Chester, OH, UNITED STATES
Morrissey, Christopher Todd, Mason, OH, UNITED STATES
PI US 2003068346 A1 20030410
AI US 2002-158507 A1 20020530 (10)
PRAI US 2001-294429P 20010530 (60)
DT Utility
FS APPLICATION
LN.CNT 1753
INCL INCLM: 424/401.000
INCLS: 424/059.000
NCL NCLM: 424/401.000
NCLS: 424/059.000
IC [7]
ICM: A61K007-42
ICS: A61K007-00
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L10 ANSWER 7 OF 31 USPATFULL
AN 2003:64317 USPATFULL
TI Topical composition comprising a susbstituted cosmetic bonding agent
IN Motley, Curits Bobby, West Chester, OH, UNITED STATES
Morrissey, Christopher Todd, Mason, OH, UNITED STATES
Bekele, Haimanot, Cincinnati, OH, UNITED STATES
PI US 2003044437 A1 20030306
AI US 2002-158506 A1 20020530 (10)
PRAI US 2001-294275P 20010530 (60)
DT Utility
FS APPLICATION
LN.CNT 1717
INCL INCLM: 424/401.000
INCLS: 424/063.000; 424/064.000; 424/059.000; 514/549.000
NCL NCLM: 424/401.000
NCLS: 424/063.000; 424/064.000; 424/059.000; 514/549.000
IC [7]
ICM: A61K007-42
ICS: A61K007-021; A61K007-025; A61K031-22
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L10 ANSWER 8 OF 31 USPATFULL
AN 2003:3085 USPATFULL
TI Topical composition comprising a functionally alkylating cosmetic bonding agent
IN Bekele, Haimanot, Cincinnati, OH, UNITED STATES
PA The Procter & Gamble Company (U.S. corporation)
PI US 2003003119 A1 20030102
US 6589542 B2 20030708
AI US 2002-92141 A1 20020306 (10)
PRAI US 2001-274057P 20010307 (60)
DT Utility
FS APPLICATION
LN.CNT 1750
INCL INCLM: 424/401.000
NCL NCLM: 424/401.000
NCLS: 424/047.000; 424/059.000; 424/061.000; 424/063.000; 424/064.000; 514/063.000
IC [7]
ICM: A61K006-00
ICS: A61K007-00
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L10 ANSWER 9 OF 31 USPATFULL

AN 2003:3031 USPATFULL
TI Cosmetic compositions exhibiting characteristic first derivative spectral curves and associated methods
IN Kalla, Karen Kay, Cincinnati, OH, UNITED STATES
Canter, Marcia Lang, Hamilton, OH, UNITED STATES
PA The Procter & Gamble Company (U.S. corporation)
PI US 2003003065 A1 20030102
AI US 2002-174339 A1 20020618 (10)
PRAI US 2001-299017P 20010618 (60)
DT Utility
FS APPLICATION
LN.CNT 2158
INCL INCLM: 424/063.000
INCLS: 424/064.000
NCL NCLM: 424/063.000
NCLS: 424/064.000
IC [7]
ICM: A61K007-021
ICS: A61K007-025
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L10 ANSWER 10 OF 31 USPATFULL
AN 2003:3030 USPATFULL
TI Cosmetic compositions comprising discrete color domains and associated methods
IN Kalla, Karen Kay, Cincinnati, OH, UNITED STATES
Canter, Marcia Lang, Hamilton, OH, UNITED STATES
PI US 2003003064 A1 20030102
AI US 2002-174247 A1 20020618 (10)
PRAI US 2001-298998P 20010618 (60)
DT Utility
FS APPLICATION
LN.CNT 1853
INCL INCLM: 424/063.000
INCLS: 424/064.000
NCL NCLM: 424/063.000
NCLS: 424/064.000
IC [7]
ICM: A61K007-021
ICS: A61K007-025
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L10 ANSWER 11 OF 31 USPATFULL
AN 2002:322074 USPATFULL
TI Topical composition comprising a three membered cyclic compound-based cosmetic bonding agent
IN Bekele, Haimanot, Cincinnati, OH, UNITED STATES
PI US 2002182236 A1 20021205
US 6565865 B2 20030520
AI US 2002-92330 A1 20020306 (10)
PRAI US 2001-273905P 20010307 (60)
DT Utility
FS APPLICATION
LN.CNT 1700
INCL INCLM: 424/401.000
INCLS: 424/059.000; 514/183.000
NCL NCLM: 424/401.000
NCLS: 424/047.000; 424/059.000; 424/061.000; 424/063.000; 424/064.000; 424/400.000; 514/475.000
IC [7]
ICM: A61K007-42
ICS: A61K031-33; A61K007-00

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L10 ANSWER 12 OF 31 USPATFULL
AN 2002:322072 USPATFULL
TI Self-foaming or foam-like preparations
IN Riedel, Heidi, Hamburg, GERMANY, FEDERAL REPUBLIC OF
Kropke, Rainer, Schenefeld, GERMANY, FEDERAL REPUBLIC OF
Bleckmann, Andreas, Ahrensburg, GERMANY, FEDERAL REPUBLIC OF
PA Beiersdorf Aktiengesellschaft (non-U.S. corporation)
PI US 2002182234 A1 20021205
AI US 2001-16964 A1 20011214 (10)
PRAI DE 2000-10063342 20001219
DT Utility
FS APPLICATION
LN.CNT 1526
INCL INCLM: 424/401.000
NCL NCLM: 424/401.000
IC [7]
ICM: A61K007-00
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L10 ANSWER 13 OF 31 USPATFULL
AN 2002:314405 USPATFULL
TI Topical composition comprising an aldehyde or ketone-based cosmetic bonding agent
IN Bekele, Haimanot, Cincinnati, OH, UNITED STATES
PA The Procter & Gamble Company (U.S. corporation)
PI US 2002176878 A1 20021128
AI US 2002-92124 A1 20020306 (10)
PRAI US 2001-273997P 20010307 (60)
DT Utility
FS APPLICATION
LN.CNT 1722
INCL INCLM: 424/401.000
INCLS: 424/059.000
NCL NCLM: 424/401.000
NCLS: 424/059.000
IC [7]
ICM: A61K007-42
ICS: A61K007-00
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L10 ANSWER 14 OF 31 USPATFULL
AN 2002:314358 USPATFULL
TI Topical composition comprising a functional aromatic derivative cosmetic bonding agent
IN Bekele, Haimanot, Cincinnati, OH, UNITED STATES
PI US 2002176829 A1 20021128
US 6488947 B2 20021203
AI US 2002-91731 A1 20020306 (10)
PRAI US 2001-274165P 20010307 (60)
DT Utility
FS APPLICATION
LN.CNT 1767
INCL INCLM: 424/059.000
INCLS: 424/060.000; 424/400.000; 424/401.000
NCL NCLM: 424/401.000
NCLS: 424/047.000; 424/059.000; 424/061.000; 424/063.000; 424/064.000; 424/400.000; 514/150.000; 514/241.000
IC [7]
ICM: A61K007-42
ICS: A61K007-44; A61K007-00

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L10 ANSWER 15 OF 31 USPATFULL
AN 2002:307583 USPATFULL
TI Topical composition comprising a functionally acylating cosmetic bonding agent
IN Bekele, Haimanot, Cincinnati, OH, UNITED STATES
PI US 2002172702 A1 20021121
AI US 2002-92329 A1 20020306 (10)
PRAI US 2001-273983P 20010307 (60)
DT Utility
FS APPLICATION
LN.CNT 1705
INCL INCLM: 424/401.000
INCLS: 424/059.000
NCL NCLM: 424/401.000
NCLS: 424/059.000
IC [7]
ICM: A61K007-42
ICS: A61K007-00
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L10 ANSWER 16 OF 31 USPATFULL
AN 2002:307582 USPATFULL
TI Topical composition comprising a functionalized acid anhydride-based cosmetic bonding agent
IN Bekele, Haimanot, Cincinnati, OH, UNITED STATES
PI US 2002172701 A1 20021121
US 6495150 B2 20021217
AI US 2002-91809 A1 20020306 (10)
PRAI US 2001-273986P 20010307 (60)
DT Utility
FS APPLICATION
LN.CNT 1690
INCL INCLM: 424/401.000
NCL NCLM: 424/401.000
NCLS: 424/059.000; 424/061.000; 424/063.000; 424/064.000; 424/400.000; 514/473.000
IC [7]
ICM: A61K007-00
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L10 ANSWER 17 OF 31 USPATFULL
AN 2002:307581 USPATFULL
TI Topical composition comprising a cyclic imidocarbonate-based cosmetic bonding agent
IN Bekele, Haimanot, Cincinnati, OH, UNITED STATES
PA The Procter & Gamble Company (U.S. corporation)
PI US 2002172700 A1 20021121
US 6485732 B2 20021126
AI US 2002-91748 A1 20020306 (10)
PRAI US 2001-274034P 20010307 (60)
DT Utility
FS APPLICATION
LN.CNT 1695
INCL INCLM: 424/401.000
NCL NCLM: 424/401.000
NCLS: 424/047.000; 424/059.000; 424/061.000; 424/063.000; 424/064.000; 424/400.000; 514/063.000; 514/472.000
IC [7]
ICM: A61K007-025
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L10 ANSWER 18 OF 31 USPATFULL
AN 2002:307580 USPATFULL
TI Topical composition comprising a 1, 2-heteroatom constituted diene cosmetic bonding agent
IN Bekele, Haimanot, Cincinnati, OH, UNITED STATES
PA The Procter & Gamble Company (U.S. corporation)
PI US 2002172699 A1 20021121
US 6491935 B2 20021210
AI US 2002-91747 A1 20020306 (10)
PRAI US 2001-273856P 20010307 (60)
DT Utility
FS APPLICATION
LN.CNT 1688
INCL INCLM: 424/401.000
NCL NCLM: 424/401.000
NCLS: 424/047.000; 424/059.000; 424/061.000; 424/063.000; 424/064.000; 514/508.000
IC [7]
ICM: A61K007-025
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L10 ANSWER 19 OF 31 USPATFULL
AN 2002:307579 USPATFULL
TI Topical composition comprising a diazonium salt-based cosmetic bonding agent
IN Bekele, Haimanot, Cincinnati, OH, UNITED STATES
PA The Procter & Gamble Company
PI US 2002172698 A1 20021121
US 6491934 B2 20021210
AI US 2002-91741 A1 20020306 (10)
PRAI US 2001-273931P 20010307 (60)
DT Utility
FS APPLICATION
LN.CNT 1687
INCL INCLM: 424/401.000
INCLS: 424/059.000; 514/150.000
NCL NCLM: 424/401.000
NCLS: 424/047.000; 424/059.000; 424/061.000; 424/063.000; 424/064.000; 424/400.000; 514/150.000
IC [7]
ICM: A61K031-655
ICS: A61K007-42
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L10 ANSWER 20 OF 31 USPATFULL
AN 2002:273470 USPATFULL
TI FORMULATIONS HAVING AN ANTIVIRAL ACTION
IN BUCHHOLZ, HERWIG, FRANKFURT, GERMANY, FEDERAL REPUBLIC OF
WAGNER, ANNETTE, FRANKFURT, GERMANY, FEDERAL REPUBLIC OF
KRAUS, CHRISTINE, FRANKFURT, GERMANY, FEDERAL REPUBLIC OF
MEDUSKI, JERZEY D., DARMSTADT, GERMANY, FEDERAL REPUBLIC OF
PI US 2002151599 A1 20021017
AI US 1999-349713 A1 19990708 (9)
DT Utility
FS APPLICATION
LN.CNT 447
INCL INCLM: 514/685.000
INCLS: 424/059.000; 424/047.000
NCL NCLM: 514/685.000
NCLS: 424/059.000; 424/047.000
IC [7]

ICM: A61K007-00
ICS: A61K009-00; A61K007-42; A61K006-00; A61K031-12
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L10 ANSWER 21 OF 31 USPATFULL
AN 2002:258445 USPATFULL
TI USE OF **FLAVONOIDS** AS IMMUNOMODULATING OR IMMUNO-PROTECTIVE AGENTS IN COSMETIC AND DERMATOLOGICAL PREPARATIONS
IN LANZENDORFER, GHITA, HAMBURG, GERMANY, FEDERAL REPUBLIC OF
STAB, FRANZ, ECHEM, GERMANY, FEDERAL REPUBLIC OF
UNTIEDT, SVEN, HAMBURG, GERMANY, FEDERAL REPUBLIC OF
PI US 2002142012 A1 20021003
AI US 1997-849525 A1 19970829 (8)
WO 1995-EP4908 19951212
PRAI DE 1994-4444238 19941213
DT Utility
FS APPLICATION
LN.CNT 868
INCL INCLM: 424/401.000
INCLS: 424/064.000; 424/070.100; 514/030.000; 514/532.000; 514/559.000; 514/570.000
NCL NCLM: 424/401.000
NCLS: 424/064.000; 424/070.100; 514/030.000; 514/532.000; 514/559.000; 514/570.000
IC [7]
ICM: A61K031-70
ICS: A61K007-025; A61K007-06; A61K006-00; A61K007-00; A61K031-235; A61K031-20; A61K031-19
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L10 ANSWER 22 OF 31 USPATFULL
AN 2002:220974 USPATFULL
TI Cosmetic and dermatological preparation for the removal of sebum
IN Herpens, Andreas, Reinbek, GERMANY, FEDERAL REPUBLIC OF
Wolf, Florian, Hoxter, GERMANY, FEDERAL REPUBLIC OF
Teichmann, Stephan, Wedel, GERMANY, FEDERAL REPUBLIC OF
Gohla, Sven, Hamburg, GERMANY, FEDERAL REPUBLIC OF
PI US 2002119109 A1 20020829
AI US 2001-891929 A1 20010626 (9)
PRAI DE 2000-10033717 20000712
DT Utility
FS APPLICATION
LN.CNT 662
INCL INCLM: 424/068.000
INCLS: 424/066.000
NCL NCLM: 424/068.000
NCLS: 424/066.000
IC [7]
ICM: A61K007-34
ICS: A61K007-38
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L10 ANSWER 23 OF 31 USPATFULL
AN 2002:198291 USPATFULL
TI Cosmetic compositions
IN Vatter, Michael Lee, Okeana, OH, UNITED STATES
Sunkel, Jorge Max, Cincinnati, OH, UNITED STATES
PI US 2002106385 A1 20020808
AI US 2001-851507 A1 20010508 (9)
PRAI US 2000-217211P 20000710 (60)
US 2001-276998P 20010319 (60)
DT Utility

FS APPLICATION
LN.CNT 1888
INCL INCLM: 424/401.000
NCL NCLM: 424/401.000
IC [7]
ICM: A61K007-021
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L10 ANSWER 24 OF 31 USPATFULL
AN 2002:191226 USPATFULL
TI Cosmetic or dermatological impregnated wipes
IN Drucks, Anja, Hamburg, GERMANY, FEDERAL REPUBLIC OF
Fecht, Stephanie von der, Schenefeld, GERMANY, FEDERAL REPUBLIC OF
Kuther, Jorg, Schenefeld, GERMANY, FEDERAL REPUBLIC OF
PI US 2002102289 A1 20020801
AI US 2001-1565 A1 20011115 (10)
PRAI DE 2000-10059584 20001130
DT Utility
FS APPLICATION
LN.CNT 1500
INCL INCLM: 424/443.000
INCLS: 424/059.000; 424/725.000; 442/123.000
NCL NCLM: 424/443.000
NCLS: 424/059.000; 424/725.000; 442/123.000
IC [7]
ICM: A61K007-42
ICS: A61K009-70; A61K035-78
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L10 ANSWER 25 OF 31 USPATFULL
AN 2002:148252 USPATFULL
TI Cosmetic and dermatological preparation with a content of cyclodextrins for the removal of sebum
IN Max, Heiner, Hamburg, GERMANY, FEDERAL REPUBLIC OF
Nielsen, Jens, Henstedt-Ulzburg, GERMANY, FEDERAL REPUBLIC OF
Raschke, Thomas, Pinneberg, GERMANY, FEDERAL REPUBLIC OF
PI US 2002076389 A1 20020620
AI US 2001-909311 A1 20010719 (9)
PRAI DE 2000-10039063 20000810
DT Utility
FS APPLICATION
LN.CNT 716
INCL INCLM: 424/070.130
INCLS: 514/058.000
NCL NCLM: 424/070.130
NCLS: 514/058.000
IC [7]
ICM: A61K007-06
ICS: A61K007-11; A61K031-724
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L10 ANSWER 26 OF 31 USPATFULL
AN 2002:48032 USPATFULL
TI Anhydrous cosmetic compositions
IN Vatter, Michael Lee, Okeana, OH, UNITED STATES
Sunkel, Jorge Max, Cincinnati, OH, UNITED STATES
Motley, Curtis Bobby, West Chester, OH, UNITED STATES
PI US 2002028223 A1 20020307
US 6475500 B2 20021105
AI US 2001-850892 A1 20010508 (9)
PRAI US 2000-217040P 20000710 (60)
DT Utility

FS APPLICATION
LN.CNT 2044
INCL INCLM: 424/401.000
INCLS: 424/063.000
NCL NCLM: 424/401.000
NCLS: 424/063.000; 424/064.000; 424/065.000; 424/400.000; 424/484.000; 424/486.000; 424/489.000; 424/502.000; 514/063.000; 514/772.100; 514/844.000; 514/944.000; 514/951.000
IC [7]
ICM: A61K007-021
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L10 ANSWER 27 OF 31 USPATFULL
AN 2002:47993 USPATFULL
TI Cosmetic compositions
IN Sunkel, Jorge Max, Cincinnati, OH, UNITED STATES
Vatter, Michael Lee, Okeana, OH, UNITED STATES
PI US 2002028184 A1 20020307
US 6524598 B2 20030225
AI US 2001-850763 A1 20010508 (9)
PRAI US 2000-217114P 20000710 (60)
DT Utility
FS APPLICATION
LN.CNT 1805
INCL INCLM: 424/059.000
INCLS: 424/060.000; 424/400.000; 424/401.000; 424/078.020; 424/078.080
NCL NCLM: 424/401.000
NCLS: 514/063.000; 514/844.000
IC [7]
ICM: A61K007-42
ICS: A61K007-44; A61K007-00; A61K031-74
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L10 ANSWER 28 OF 31 USPATFULL
AN 2002:31971 USPATFULL
TI Anhydrous cosmetic compositions
IN Vatter, Michael Lee, Okeana, OH, UNITED STATES
Sunkel, Jorge Max, Cincinnati, OH, UNITED STATES
Motley, Curtis Bobby, Chester, OH, UNITED STATES
PI US 2002018791 A1 20020214
AI US 2001-850961 A1 20010508 (9)
PRAI US 2000-217170P 20000710 (60)
DT Utility
FS APPLICATION
LN.CNT 1559
INCL INCLM: 424/401.000
NCL NCLM: 424/401.000
IC [7]
ICM: A61K007-00
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L10 ANSWER 29 OF 31 USPATFULL
AN 2002:31970 USPATFULL
TI Cosmetic compositions
IN Vatter, Michael Lee, Okeana, OH, UNITED STATES
Sunkel, Jorge Max, Cincinnati, OH, UNITED STATES
Motley, Curtis Bobby, West Chester, OH, UNITED STATES
PI US 2002018790 A1 20020214
AI US 2001-850845 A1 20010508 (9)
PRAI US 2000-217428P 20000710 (60)
DT Utility
FS APPLICATION

LN.CNT 1883
INCL INCLM: 424/401.000
INCLS: 424/063.000
NCL NCLM: 424/401.000
NCLS: 424/063.000
IC [7]
ICM: A61K007-021
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L10 ANSWER 30 OF 31 USPATFULL
AN 1998:24908 USPATFULL
TI Waterproof cosmetic or dermatological photoprotective preparations
IN Gers-Barlag, Heinrich, Kummerfeld, Germany, Federal Republic of
Hachmann, Stefan, Norderstedt, Germany, Federal Republic of
Nissen, Bente, Hamburg, Germany, Federal Republic of
Schultz, Sabine, Hamburg, Germany, Federal Republic of
PA Beiersdorf AG, Hamburg, Germany, Federal Republic of (non-U.S. corporation)
PI US 5725844 19980310
WO 9417780 19940818
AI US 1995-495643 19951127 (8)
WO 1994-EP257 19940129
19951127 PCT 371 date
19951127 PCT 102(e) date
PRAI DE 1993-4303983 19930211
DE 1993-4342719 19931215
DT Utility
FS Granted
LN.CNT 653
INCL INCLM: 424/059.000
INCLS: 424/060.000; 424/047.000; 424/400.000; 424/401.000; 424/DIG.005; 514/159.000; 514/241.000; 514/245.000; 514/408.000; 514/532.000; 514/679.000; 514/692.000
NCL NCLM: 424/059.000
NCLS: 424/047.000; 424/060.000; 424/400.000; 424/401.000; 424/DIG.005; 514/159.000; 514/241.000; 514/245.000; 514/408.000; 514/532.000; 514/679.000; 514/692.000
IC [6]
ICM: A61K007-42
ICS: A61K007-44
EXF 424/59; 424/DIG.5; 424/47; 424/60; 424/400; 424/401
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L10 ANSWER 31 OF 31 USPATFULL
AN 97:31734 USPATFULL
TI Active compound combinations having a content of glyceryl alkyl ethers and cosmetic and dermatological formulations comprising such active compound combinations
IN Sch onrock, Uwe, Norderstedt, Germany, Federal Republic of
Degwert, Joachim, Tostedt, Germany, Federal Republic of
Steckel, Friedhelm, Hamburg, Germany, Federal Republic of
PA Beiersdorf Aktiengesellschaft, Hamburg, Germany, Federal Republic of (non-U.S. corporation)
PI US 5621012 19970415
AI US 1995-457770 19950601 (8)
PRAI DE 1994-4420625 19940614
DT Utility
FS Granted
LN.CNT 769
INCL INCLM: 514/629.000
INCLS: 514/723.000; 514/729.000; 424/059.000
NCL NCLM: 514/629.000

NCLS: 424/059.000; 514/723.000; 514/729.000
IC [6]
ICM: A61K031-16
ICS: A61K007-42; A61K031-08
EXF 424/59; 514/629; 514/723; 514/729
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

=> D L10 1-31 BIB, AB, TI, KWIC

L10 ANSWER 1 OF 31 USPATFULL
AN 2003:180331 USPATFULL
TI Low-emulsifier or emulsifier-free systems of the oil-in-water type with a content of stabilizers and an amino-substituted hydroxybenzophenone
IN Heidenfelder, Thomas, Dannstadt, GERMANY, FEDERAL REPUBLIC OF
Wunsch, Thomas, Speyer, GERMANY, FEDERAL REPUBLIC OF
Andre, Valerie, Ludwigshafen, GERMANY, FEDERAL REPUBLIC OF
PI US 2003124158 A1 20030703
AI US 2002-232376 A1 20020903 (10)
PRAI DE 2001-143964 20010907
DT Utility
FS APPLICATION
LREP Herbert B. Keil, KEIL & WEINKAUF, 1350 Connecticut Ave., N.W., Washington, DC, 20036
CLMN Number of Claims: 6
ECL Exemplary Claim: 1
DRWN No Drawings
LN.CNT 2109
AB Cosmetic or dermatological preparations which represent finely disperse systems of the oil-in-water type, comprising

a) an oil phase,

b) a water phase,

c) one or more stabilizers,

d) at most 2.00% by weight of one or more emulsifiers, and

e) an amino-substituted hydroxybenzophenone of the formula I ##STR1##
TI Low-emulsifier or emulsifier-free systems of the oil-in-water type with a content of stabilizers and an amino-substituted hydroxybenzophenone
SUMM . . . create cosmetic and dermatological preparations whose main purpose is not protection against sunlight, but which nevertheless have a content of **UV protection** substances. Thus, for example, UV-A and/or UV-B filter substances are usually incorporated into day creams.
SUMM . . . folic acid and derivatives thereof, furfurylidenesorbitol and derivatives thereof, ubiquinone and ubiquinol and derivatives thereof, vitamin C and derivatives (e.g. **ascorbyl** palmitate, Mg **ascorbyl** phosphate, **ascorbyl** acetate), tocopherols and derivatives (e.g. vitamin E acetate), and coniferyl benzoate of benzoin resin, ferulic acid, furfurylideneglucitol, carnosine, butylhydroxytoluene, butylhydroxyanisole,. . .
SUMM [0293] Catechins are a group of compounds which are to be regarded as hydrogenated **flavones** or anthocyanidines and are derivatives of "catechin" (catechol, 3,3',4',5,7-flavanpentol, 2-(3,4-dihydroxyphenyl)chroman-3,5,7-triol). Epicatechin ((2R,3R)-3,3',4',5,7-flavanpentol) is also an advantageous active ingredient for the. . .
SUMM [0295] **Flavone** and its derivatives (also often collectively called "**flavones**") are also advantageous active ingredients for the purposes of the present invention. They are characterized by the

following basic structure. . .

SUMM [0296] Some of the more important **flavones** which can also preferably be used in preparations according to the invention are given in table 2 below:

	OH substitution positions							
	3	5	7	8	2'	3'	4'	5'
Flavone	-	-	-	-	-	-	-	-
Flavonol	+	-	-	-	-	-	-	-
Chrysin	-	+	+	-	-	-	-	-
Galangin	+	+	+	-. . .				

SUMM [0297] In nature, **flavones** are usually in glycosylated form.

SUMM [0298] According to the invention, the **flavonoids** are preferably chosen from the group of substances of the generic structural formula ##STR42##

SUMM [0300] According to the invention, the **flavonoids** can, however, also advantageously be chosen from the group of substances of the generic structural formula ##STR43##

SUMM . . . are, independently of one another, advantageously chosen from the group consisting of H, OH, methoxy, ethoxy and 2-hydroxyethoxy, and the **flavone** glycosides have the structure ##STR45##

SUMM [0306] The **flavone** glycosides according to the invention are particularly advantageously chosen from the group given by the following structure: ##STR46##

SUMM [0309] For the purposes of the present invention, it is particularly advantageous to choose the **flavone** glucoside(s) from the group consisting of .alpha.-glucosylrutin, .alpha.-glucosylmyricetin, .alpha.-glucosylisoquercitrin, .alpha.-glucosylisoquercetin and .alpha.-glucosylquercitrin.

SUMM . . . the invention are naringin (aurantin, naringenin-7-rhamno-glucoside), hesperidin 3',5,7-trihydroxy-4'-methoxyflavanone-7-rutinoside, hesperidoside, hesperetin-7-O-rutinoside), rutin (3,3',4',5,7-pentahydroxyflavone-3-rutinoside, quercetin-3-rutinoside, sophorin, birutan, rutabion, taurutin, phytomelin, melin), troxerutin (3,5-dihydroxy-3',4',7-tris(2-hydroxyethoxy)**flavone** -3-(6-O-(6-deoxy-.alpha.-L-mannopyranosyl)-.beta.-D-glucopyranoside)), monoxerutin (3,3',4',5-tetrahydroxy-7-(2-hydroxyethoxy)**flavone** -3-(6-O-(6-deoxy-.alpha.-L-mannopyranosyl)-.beta.-D-glucopyranoside)), dihydrorobinetin (3,3',4',5',7-pentahydroxyflavanone), taxifolin (3,3',4',5,7-pentahydroxyflavanone), eriodictyol-7-glucoside (3',4',5,7-tetrahydroxyflavanone-7 glucoside), flavanomarein (3',4',7,8-tetrahydroxyflavanone-7 glucoside) and isoquercetin (3,3',4',5,7-pentahydroxyflavanone-3-(.beta.-D-glucopyranoside).

SUMM [0319] Preferred derivatives are creatine phosphate and creatine sulfate, creatine acetate, creatine **ascorbate** and the derivatives esterified at the carboxyl group with mono- or polyfunctional alcohols.

DETD . . .	2.0	6.0					
Dicaprylyl carbonate		2.0					
Dibutyl adipate	2.0	0.5	1.0				
Cylomethicone				3.0			
Jojoba oil		2.0					
PVP hexadecene copolymer	0.5		0.05	0.5		0.5	
Butylene glycol	3.0	7.5		7.5	2.5	5.0	
Ascorbyl palmitate		0.5	0.75		0.2	0.3	
Octoxyglycerol		1.0		0.5		1.0	
Glycine soya			2.0			1.5	
Trisodium EDTA	1.0	0.5	0.5		1.5	0.5	

Sodium hydroxide 1.0 0.2. . .

L10 ANSWER 2 OF 31 USPATFULL
AN 2003:172777 USPATFULL
TI Cosmetic and dermatological preparations in stick form, comprising an amino-substituted hydroxybenzophenone
IN Heidenfelder, Thomas, Dannstadt, GERMANY, FEDERAL REPUBLIC OF
Wunsch, Thomas, Speyer, GERMANY, FEDERAL REPUBLIC OF
Andre, Valerie, Ludwigshafen, GERMANY, FEDERAL REPUBLIC OF
PI US 2003118621 A1 20030626
AI US 2002-234203 A1 20020905 (10)
PRAI DE 2001-143960 20010907
DT Utility
FS APPLICATION
LREP Herbert B. Keil, KEIL & WEINKAUF, 1350 Connecticut Ave,. N.W., Washington, DC, 20036
CLMN Number of Claims: 7
ECL Exemplary Claim: 1
DRWN No Drawings
LN.CNT 2085
AB Cosmetic sticks comprising

a) a fatty phase which comprises at least one oil component and/or at least one wax component and

b) an amino-substituted hydroxybenzophenone of the formula I. ##STR1##
TI Cosmetic and dermatological preparations in stick form, comprising an amino-substituted hydroxybenzophenone
SUMM . . . create cosmetic and dermatological preparations whose main purpose is not protection against sunlight, but which nevertheless have a content of **UV protection** substances. Thus, for example, UV-A and/or UV-B filter substances or broadband filters are usually incorporated into lipsticks.
SUMM . . . folic acid and derivatives thereof, furfurylidenesorbitol and derivatives thereof, ubiquinone and ubiquinol and derivatives thereof, vitamin C and derivatives (e.g. **ascorbyl** palmitate, Mg **ascorbyl** phosphate, **ascorbyl** acetate), tocopherols and derivatives (e.g. vitamin E acetate), and coniferyl benzoate of benzoin resin, ferulic acid, furfurylideneglucitol, carnosine, butylhydroxytoluene, butylhydroxyanisole,. . .
SUMM [0282] Catechins are a group of compounds which are to be regarded as hydrogenated **flavones** or anthocyanidines and are derivatives of "catechin" (catechol, 3,3',4',5,7-flavanpentol, 2-(3,4-dihydroxyphenyl)chroman-3,5,7-triol). Epicatechin ((2R,3R)-3,3',4',5,7-flavanpentol) is also an advantageous active ingredient for the. . .
SUMM [0285] **Flavone** and its derivatives (also often collectively called "**flavones**") are also advantageous active ingredients for the purposes of the present invention. They are characterized by the following basic structure. . .
SUMM [0286] Some of the more important **flavones** which can also preferably be used in preparations according to the invention are given in table 2 below:
TABLE 2

	OH substitution positions							
	3	5	7	8	2'	3'	4'	5'
Flavone	-	-	-	-	-	-	-	-
Flavonol	+	-	-	-	-	-	-	-
Chrysin	-	+	+	-	-	-	-	-
Galangin	+	+	+	-.	.	.		

SUMM [0287] In nature, **flavones** are usually in glycosylated form.

SUMM [0288] According to the invention, the **flavonoids** are preferably chosen from the group of substances of the generic structural formula ##STR43##

SUMM [0290] According to the invention, the **flavonoids** can, however, also advantageously be chosen from the group of substances of the generic structural formula ##STR44##

SUMM . . . are, independently of one another, advantageously chosen from the group consisting of H, OH, methoxy, ethoxy and 2-hydroxyethoxy, and the **flavone** glycosides have the structure ##STR46##

SUMM [0296] The **flavone** glycosides according to the invention are particularly advantageously chosen from the group given by the following structure: ##STR47##

SUMM [0299] For the purposes of the present invention, it is particularly advantageous to choose the **flavone** glucoside(s) from the group consisting of .alpha.-glucosylrutin, .alpha.-glucosylmyricetin, .alpha.-glucosylisoquercitrin, .alpha.-glucosylisoquercetin and .alpha.-glucosylquercitrin.

SUMM . . . the invention are naringin (aurantin, naringenin-7-rhamno-glucoside), hesperidin 3',5,7-trihydroxy-4'-methoxyflavanone-7-rutinoside, hesperidoside, hesperetin-7-O-rutinoside), rutin (3,3',4',5,7-pentahydroxyflavone-3-rutinoside, quercetin-3-rutinoside, sophorin, birutan, rutabion, taurutin, phytomelin, melin), troxerutin (3,5-dihydroxy-3',4',7-tris(2-hydroxyethoxy)**flavone** -3-(6-O-(6-deoxy-.alpha.-L-mannopyranosyl)-.beta.-D-glucopyranoside)), monoxerutin (3,3',4',5-tetrahydroxy-7-(2-hydroxyethoxy)**flavone** -3-(6-O-(6-deoxy-.alpha.-L-mannopyranosyl)-.beta.-D-glucopyranoside)), dihydrorobinetin (3,3',4',5',7-pentahydroxyflavanone), taxifolin (3,3',4',5,7-pentahydroxyflavanone), eriodictyol-7-glucoside (3',4',5,7-tetrahydroxyflavanone-7 glucoside), flavanomarein (3',4',7,8-tetrahydroxyflavanone-7 glucoside) and isoquercetin (3,3',4',5,7-pentahydroxyflavanone-3-(.beta.-D-glucopyranoside).

SUMM [0309] Preferred derivatives are creatine phosphate and creatine sulfate, creatine acetate, creatine **ascorbate** and the derivatives esterified at the carboxyl group with mono- or polyfunctional alcohols.

DETD . . . Methoxycinnamate 3 3.6 7.5 2.5

Bis-Ethylhexyloxyphenol Methoxyphenyltriazine				5
Octocrylene			7.5	
Benzophenone-3			3.5	
Ethylhexyltriazone	2			
Diethylhexylbutamidotriazone				3
Compound I	1.5	0.5	3.5	4.0
Tocopheryl Acetate	0.5	1	1	1
Tocopherol; **Ascorbyl** Palmitate	0.05	0.05	0.05	0.05
Buxus Chinensis	2	1	1	1
Parfum, BHT	q.s	q.s	q.s	q.s
Ricinus Communis	ad. 100	ad. 100. . .		

L10 ANSWER 3 OF 31 USPATFULL

AN 2003:165537 USPATFULL

TI Ultra-stable composition comprising moringa oil and its derivatives and uses thereof

IN Brown, James H., Scottsdale, AZ, UNITED STATES
Kleiman, Robert, Mesa, AZ, UNITED STATES
Hill, John C., Mesa, AZ, UNITED STATES

PI US 2003113391 A1 20030619

AI US 2001-964988 A1 20010926 (9)

RLI Continuation-in-part of Ser. No. US 2001-917091, filed on 27 Jul 2001, PENDING

DT Utility

FS APPLICATION
LREP The Halvorson Law Firm, Suite 1, 405 W. Southern Ave., Tempe, AZ, 85282
CLMN Number of Claims: 30
ECL Exemplary Claim: 1
DRWN No Drawings
LN.CNT 1230
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Cosmetic compositions with enhanced slip and/or break strength are described, said compositions comprising ultra-stable moringa oils, or its derivatives. These compositions may be used in cosmetic applications such as creams, lotions, and liquid foundations; massage oils; pressed products, such as eye shadow, blush, and powder; molded products, such as lipstick, lip balm, foundation, blush, eye liner, eye shadow, mascara; and hair care products, such as leave in conditioners, relaxers, hair dyes and other applications. The oils derived from the moringa plant should have a percent methylene interrupted unsaturation of less than 1%. The compositions may have at least one supplemental additive, such as malic acid, kojic acid, or **ascorbic** acid, present in an amount of from 0.01 to 2% or more by weight of the composition and the tocopherol is present in an amount of from 0.01 to 5% by weight of the composition.

TI Ultra-stable composition comprising moringa oil and its derivatives and uses thereof

AB . . . of less than 1%. The compositions may have at least one supplemental additive, such as malic acid, kojic acid, or **ascorbic** acid, present in an amount of from 0.01 to 2% or more by weight of the composition and the tocopherol. . .

SUMM . . . hydroquinones (such as tertiary-butylhydroquinones, propyl gallate, and tocopherols). Reducing agents or oxygen scavengers encompass another class of antioxidants and includes **ascorbic** acid (vitamin C) and its derivatives (such as esters of **ascorbic** acid, such as **ascorbyl** palmitate); sulfites (such as sulfur sulfite, alkali metal sulfites, and bisulfites, including alkali metal bisulfites); glucose oxidase (including catalse); erythrobic. . .

SUMM . . . dramatically large increase in oxidation stability when a supplemental additive selected from the group comprising malic acid, kojic acid, and **ascorbic** acid, is further included into the combination. The tocopherol is preferably present in an amount of from 0.01 to 5%. . .

DETD . . . of tocopherols in combination with at least one supplemental additive such as the free-radical scavengers malic acid, kojic acid, and **ascorbic** acid, and percent polyunsaturation of the different ethyl esters. Examination of Table 4 reveals that the addition of tocopherols to. . . the stability from 1.3 hours to 9.8 hours (754%). Unexpectedly, the addition of the other malic acid, kojic acid, and **ascorbic** acid alone either reduced the stability or left it virtually unaffected. Even more unexpectedly, addition of tocopherols combined with the. . . malic acid); from 1.3 to 376 hrs (28,923%) (tocopherols and kojic acid); and from 1.3 to 121.0 hrs (9,308%) (tocopherols and **ascorbic** acid). This ultrastabilization is surprisingly greater (orders of magnitude) than that found for the ethyl esters of other naturally occurring. . .

DETD . . . above, the addition of tocopherols, and especially tocopherols combined with other supplemental additives such as malic acid, kojic acid, and **ascorbic** acid, to moringa oil and moringa oil ethyl ester produces super-stable compositions, as evidenced from the OSI results. The data. . .

DETD . . . high degree of slip to the formula, facilitating application. Floramac 10 allows the formula to spread easily and evenly. With **UV protection**, this formula provides the skin with a healthy, radiant glow.

Phase	Trade Name	INCI Name	Supplier	% wt./wt.

Formula 7

A Water. . .

DETD . . . anti-microbial agents, anti-perspiration agents, astringents, deodorants, hair removers, external analgesics, agents for hair conditioning, skin conditioning, sun protection, vitamins, catechines, **flavonoids**, ceramides, fatty substances, polyunsaturated fatty acids, essential fatty acids, keratolytic agents, enzymes, anti-enzymes, moisteners, anti-inflammatory substances, detergents, perfumes, and mineral. . .

DETD . . . ETHYL ESTER OF **ASCORBIC** UNSATURATION	TOCOPHEROLS + ADDITIVE	TOCOPHEROLS + MALIC ACID	TOCOPHEROLS + KOJIC ACID	KOJIC ACID + MALIC ACID	% METHYLENE ASC. ACID
MORINGA	1.3	9.8	0.6	1.7	0.7
162.5	376	121.0	0.7		
MEADOWFOAM	48.0	103.2	83.0	110.2. . .	

CLM What is claimed is:

. . . supplemental additive, wherein the at least one supplemental additive selected from the group consisting of kojic acid, malic acid, and **ascorbic** acid, wherein said tocopherol is present in an amount of from 0.01 to 5% by weight of said long-chain oil,. . .

. . . supplemental additive, wherein the at least one supplemental additive selected from the group consisting of kojic acid, malic acid, and **ascorbic** acid, wherein said tocopherol is present in an amount of from 0.01 to 5% by weight of said long-chain oil,. . .

. . . supplemental additive, wherein the at least one supplemental additive selected from the group consisting of kojic acid, malic acid, and **ascorbic** acid, wherein said tocopherol is present in an amount of from 0.01 to 5% by weight of said long-chain oil,. . .

. . . supplemental additive, wherein the at least one supplemental additive selected from the group consisting of kojic acid, malic acid, and **ascorbic** acid, wherein said tocopherol is present in an amount of from 0.01 to 5% by weight of said long-chain oil,. . .

. . . supplemental additive, wherein the at least one supplemental additive selected from the group consisting of kojic acid, malic acid, and **ascorbic** acid, wherein said tocopherol is present in an amount of from 0.01 to 5% by weight of said long-chain oil,. . .

. . . supplemental additive, wherein the at least one supplemental additive selected from the group consisting of kojic acid, malic acid, and **ascorbic** acid, wherein said tocopherol is present in an amount of from 0.01 to 5% by weight of said long-chain oil,. . .

. . . supplemental additive, wherein the at least one supplemental additive selected from the group consisting of kojic acid, malic acid, and **ascorbic** acid, wherein said tocopherol is present in an amount of from 0.01 to 5% by weight of said long-chain oil,. . .

. . . supplemental additive, wherein the at least one supplemental additive selected from the group consisting of kojic acid, malic acid, and **ascorbic** acid, wherein said tocopherol is present in an amount of from 0.01 to 5% by weight of said long-chain oil,. . .

. . . supplemental additive, wherein the at least one supplemental additive selected from the group consisting of kojic acid, malic acid, and **ascorbic** acid, wherein said tocopherol is present in an amount of from 0.01 to 5% by weight of said long-chain oil,. . .

L10 ANSWER 4 OF 31 USPATFULL
AN 2003:158885 USPATFULL
TI Silicone elastomer emulsion cosmetic composition comprising colorant inclusive internal phase
IN Stephens, Alison Fiona, Cookham, UNITED KINGDOM
Jones, Neil John, Staines, UNITED KINGDOM
Sunkel, Jorge Max, Cincinnati, OH, UNITED STATES
Vatter, Michaesl Lee, Okeana, OH, UNITED STATES
PA The Procter & Gamble Company, Cincinnati, OH (non-U.S. corporation)
PI US 2003108498 A1 20030612
AI US 2002-280525 A1 20021025 (10)
PRAI GB 2001-25778 20011026
DT Utility
FS APPLICATION
LREP THE PROCTER & GAMBLE COMPANY, INTELLECTUAL PROPERTY DIVISION, WINTON HILL TECHNICAL CENTER - BOX 161, 6110 CENTER HILL AVENUE, CINCINNATI, OH, 45224
CLMN Number of Claims: 12
ECL Exemplary Claim: 1
DRWN No Drawings
LN.CNT 1576
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The present invention relates to silicone elastomer emulsion cosmetic compositions that comprise an internal phase the further includes a colorant. These compositions are intended to deliver such colorant ingredients to the skin of the user in such a manner as to provide a smooth and even colored appearance. In particular, the present invention relates to a cosmetic composition comprising an emulsion that further comprises:

a) a continuous aqueous phase comprising:

1) from about 0.1% to about 10%, by weight of the composition, of a non-emulsifying crosslinked siloxane elastomer;

b) a dispersed oil phase comprising:

1) from about 1% to about 25%, by weight of the composition, of an oil compatible colorant; and

2) from about 0.01% to about 20%, by weight of the composition, of a binder; and

c) from about 0.01% to about 15%, by weight of the composition, of an emulsifier.
TI Silicone elastomer emulsion cosmetic composition comprising colorant inclusive internal phase
SUMM . . . as peptides (e.g., Matrixyl [pentapetide derivative]), farnesol, bisabolol, phytantriol, glycerol, urea, guanidine (e.g., amino guanidine); vitamins and derivatives thereof such **ascorbic** acid, vitamin A (e.g., retinoid derivatives such as retinyl palmitate or retinyl proprionate), vitamin E (e.g., tocopherol acetate), vitamin B.sub.3. . . and the like and mixtures thereof; sunscreens; anti-acne medicaments (resorcinol, salicylic acid, and the like; antioxidants (e.g., phytosterols, lipoic acid); **flavonoids** (e.g., isoflavones, phytoestrogens); skin soothing and healing agents such as aloe vera extract, allantoin and the like; chelators and sequestrants;. . .
SUMM . . . natural and radiant appearance of mammalian skin; 2) methods of applying a color cosmetic to skin; 3) methods of providing **UV protection** to mammalian skin; 4) methods of preventing, retarding, and/or controlling the appearance of oil; 5) methods of

modifying the feel. . .

CLM What is claimed:

11. A method of providing **UV protection** to mammalian skin wherein said method comprises the step of topically applying the composition of claim 1 to mammalian skin.

. . .

12. A method of providing **UV protection** to mammalian skin wherein said method comprises the step of topically applying the composition of claim 1 to mammalian skin.

. . .

L10 ANSWER 5 OF 31 USPATFULL

AN 2003:158880 USPATFULL

TI Extracts from residues left in the production of wine

IN Henry, Florence, Villers-Les-Nacy, FRANCE
Pauly, Gilles, Nancy, FRANCE
Moser, Philippe, Essey-Les-Nancy, FRANCE

PI US 2003108493 A1 20030612

AI US 2002-203732 A1 20020812 (10)
WO 2001-EP1138 20010202

PRAI FR 2000-1753 20000211

DT Utility

FS APPLICATION

LREP COGNIS CORPORATION, 2500 RENAISSANCE BLVD., SUITE 200, GULPH MILLS, PA, 19406

CLMN Number of Claims: 15

ECL Exemplary Claim: 1

DRWN No Drawings

LN.CNT 1248

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The invention relates to extracts from residues left in the production of wine, and to the use thereof as active substance combinations for producing cosmetic and/or pharmaceutical compositions.

TI Extracts from residues left in the production of wine

SUMM [0013] The anthocyanidines, pro-anthocyanidines, **flavones**, catechols and tannins are particularly preferred. Among the raw materials to be used, residues from the production of red Madeira. . .

SUMM . . . factors, thickeners, polymers, silicone compounds, fats, waxes, lecithins, phospholipids, stabilizers, biogenic agents, deodorants, antiperspirants, antidandruff agents, film formers, swelling agents, **UV protection** factors, antioxidants, hydrotropes, preservatives, insect repellents, self-tanning agents, tyrosine inhibitors (depigmenting agents), solubilizers, perfume oils, dyes and the like as. . .

SUMM [0066] In the context of the invention, biogenic agents are, for example, tocopherol, tocopherol acetate, tocopherol palmitate, **ascorbic** acid, deoxyribonucleic acid, retinol, bisabolol, allantoin, phytantriol, panthenol, AHA acids, amino acids, ceramides, pseudoceramides, essential oils, other plant extracts and. . .

SUMM [0088] **UV protection** factors in the context of the invention are, for example, organic substances (light filters) which are liquid or crystalline at. . .

SUMM . . . oleic acid), folic acid and derivatives thereof, ubiquinone and ubiquinol and derivatives thereof, vitamin C and derivatives thereof (for example **ascorbyl** palmitate, Mg **ascorbyl** phosphate, **ascorbyl** acetate), tocopherols and derivatives (for example vitamin E acetate), vitamin A and derivatives (vitamin A palmitate) and coniferyl benzoate of. . .

SUMM . . . formation of melanin and are used in depigmenting agents are, for example, arbutin, ferulic acid kojic acid, coumaric acid and **ascorbic** acid (vitamin C).

L10 ANSWER 6 OF 31 USPATFULL
AN 2003:99242 USPATFULL
TI Topical composition comprising an activated, trans-structured cosmetic bonding agent
IN Bekele, Haimanot, Cincinnati, OH, UNITED STATES
Motley, Curtis Bobby, West Chester, OH, UNITED STATES
Morrissey, Christopher Todd, Mason, OH, UNITED STATES
PI US 2003068346 A1 20030410
AI US 2002-158507 A1 20020530 (10)
PRAI US 2001-294429P 20010530 (60)
DT Utility
FS APPLICATION
LREP THE PROCTER & GAMBLE COMPANY, INTELLECTUAL PROPERTY DIVISION, WINTON HILL TECHNICAL CENTER - BOX 161, 6110 CENTER HILL AVENUE, CINCINNATI, OH, 45224
CLMN Number of Claims: 17
ECL Exemplary Claim: 1
DRWN No Drawings
LN.CNT 1753
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The present invention relates to cosmetic compositions that comprise a safe and effective amount of a bonding agent comprising trans structure ##STR1##

wherein X represents a cosmetic benefit agent, L represents an optional chemical linker between X and a remainder of the bonding agent; and R represents an activating electron withdrawing group; and a cosmetically acceptable carrier for the bonding agent wherein the composition is administered topically to mammalian proteinaceous substrates and wherein the bonding agent reacts with a protein contained in the substrate such that the bonding agent, and thus the cosmetic benefit agent, is covalently attached to the substrate. The invention further relates to methods of using the compositions described above as well as various products that include the claimed compositions.
TI Topical composition comprising an activated, trans-structured cosmetic bonding agent
SUMM . . . acid, retinol, retinoids, retinyl palmitate, retinyl proprionate, etc.), Vitamin B (e.g., niacin, niacinamide, riboflavin, pantothenic acid, etc.), Vitamin C (e.g., **ascorbic** acid, etc.), Vitamin D (e.g., ergosterol, ergocalciferol, cholecalciferol, etc.), Vitamin E (e.g., tocopherol acetate, etc.), and Vitamin K (e.g., phytonadione, . . .
SUMM . . . 2,4,4'-trichloro-2'-hydroxy diphenyl ether, 3,4,4'-trichlorobanilide, azelaic acid and its derivatives, phenoxyethanol, phenoxypropanol, phenoxyisopropanol, ethyl acetate, clindamycin and meclocycline; sebostats such as **flavonoids**; and bile salts such as scymnol sulfate and its derivatives, deoxycholate, and cholate.
SUMM **Flavonoids**
SUMM [0068] The cosmetic benefit agents of the present invention may also be a **flavonoid** compound. **Flavonoids** are broadly disclosed in U.S. Pat. Nos. 5,686,082 and 5,686,367. **Flavonoids** suitable for use in the present invention are flavanones selected from the group consisting of unsubstituted flavanones, mono-substituted flavanones, and. . . mixtures thereof; chalcones selected from the group consisting of unsubstituted chalcones, mono-substituted chalcones, di-substituted chalcones, tri-substituted chalcones, and mixtures thereof; **flavones** selected from the group consisting of unsubstituted **flavones**, mono-substituted **flavones**, di-substituted **flavones**, and mixtures thereof; one or more isoflavones; coumarins selected from the group consisting of unsubstituted coumarins, mono-substituted coumarins, di-substituted

coumarins,. . . or more chromanols; isomers (e.g., cis/trans isomers) thereof; and mixtures thereof. By the term "substituted" as used herein relative to **flavonoids** means **flavonoids** wherein one or more hydrogen atom of the **flavonoid** has been independently replaced with hydroxyl, C1-C8 alkyl, C1-C4 alkoxyl, O-glycoside, and the like or a mixture of these substituents.

SUMM [0069] Examples of suitable **flavonoids** include, but are not limited to, unsubstituted flavanone, mono-hydroxy flavanones (e.g., 2'-hydroxy flavanone, 6-hydroxy flavanone, 7-hydroxy flavanone, etc.), mono-alkoxy flavanones. . . 2,2'-dihydroxy chalcone, 2',3-dihydroxy chalcone, 2',5'-dihydroxy chalcone, etc.), and tri-hydroxy chalcones (e.g., 2',3',4'-trihydroxy chalcone, 4,2',4'-trihydroxy chalcone, 2,2', 4'-trihydroxy chalcone, etc.), unsubstituted **flavone**, 7,2'-dihydroxy **flavone**, 3',4'-dihydroxy naphthoflavone, 4'-hydroxy **flavone**, 5,6-benzoflavone, and 7,8-benzoflavone, unsubstituted isoflavone, daidzein (7,4'-dihydroxy isoflavone), 5,7-dihydroxy-4'-methoxy isoflavone, soy isoflavones (a mixture extracted from soy), unsubstituted coumarin, 4-hydroxy. . .

SUMM . . . also further be derivatized (e.g., a glycoside, an ester or an ether derivative prepared following extraction from a natural source). **Flavonoid** compounds useful herein are commercially available from a number of sources, e.g., Indofine Chemical Company, Inc. (Somerville, N.J.), Steraloids, Inc.. . .

SUMM [0072] Mixtures of the above **flavonoid** compounds may also be used.

SUMM [0073] The herein described **flavonoid** compounds are preferably present in the instant invention at concentrations of from about 0.01% to about 20%, more preferably from. . .

SUMM . . . of a skin lightening agent. Suitable skin lightening agents include those known in the art, including kojic acid, arbutin, deoxyarbutin, **ascorbic** acid and derivatives thereof, e.g., magnesium **ascorbyl** phosphate or sodium **ascorbyl** phosphate or other salts of **ascorbyl** phosphate.

SUMM . . . vinyl pyrrolidone), opacifying agents, pH adjusters, propellants, reducing agents, sequestrants, skin bleaching agents (or lightening agents) (e.g., hydroquinone, kojic acid, **ascorbic** acid, magnesium **ascorbyl** phosphate, **ascorbyl** glucosamine), skin soothing and/or healing agents (e.g., panthenol and derivatives (e.g., ethyl panthenol), aloe vera, pantothenic acid and its derivatives,. . .

SUMM . . . 6) methods of providing antiperspirant efficacy to skin; 7) methods of preventing, retarding, and/or treating wrinkles; 8) methods of providing **UV protection** to skin; 9) methods of preventing, retarding, and/or treating cellulite; 10) methods of preventing, retarding, and/or controlling the appearance of. . .

DETD Antioxidant-modified Bonding Agent--Modified **Ascorbate**

DETD . . . Dioxide 0.544

Part A- Neutralization Premix

(A)	USP Water	3.013
(A)	Sodium Hydroxide	0.0125

Part B - Niacinamide Premix

(B)	USP Water	5.000
(B)	Panthenol	0.500
(B)	Modified **Ascorbate** (from Example 1)	2.000
(B)	FD&C Yellow No.5	0.00115
(B)	FD&C Red No. 40	0.00050
(C)	Sefa Cottonate	0.670
(C)	Isopropyl Isostearate	1.330
(C)	Tocopherol. . .	

DETD . . . an appropriate container prepare Part D (Particulate Premix).

Mix by mixer until homogenous. In an appropriate container, prepare the modified **ascorbate** premix. Add Part B ingredients into container, except FD&C Yellow/Red. Heat to no higher than 40.degree. C. while mixing until modified **ascorbate** is dissolved. Add FD&C Yellow/Red. Mix until dissolved. Prepare the Oil Phase. Add part C ingredients to oil phase except. . . 60.degree. C. and add sepigel. Switch to U-blade once formula looks smooth. Cool batch to 50.degree. C., then add modified **ascorbate** premix, Benzyl alcohol and Q2-1402. Cool batch to 40.degree. C. with periodic spatula mixing to insure homogeneity. When temperature reaches. . .

DETD [0166] In a suitable vessel, neat, chemically synthesized modified **ascorbate** is dissolved using an appropriate solvent. The modified asdcorbate is then recrystallized by sublimation method. Next, the recrystallized modified **ascorbate** is milled to the appropriate particle size.

DETD . . . form a solution of these materials. Next, the aluminum chlorohydroxide is added with gentle agitation, followed by the recrystallized modified **ascorbate** and remaining ingredients. The solution is mixed until a homogenous suspension is formed. The suspension is cooled to a temperature. . .

L10 ANSWER 7 OF 31 USPATFULL
AN 2003:64317 USPATFULL
TI Topical composition comprising a susbstituted cosmetic bonding agent
IN Motley, Curits Bobby, West Chester, OH, UNITED STATES
Morrissey, Christopher Todd, Mason, OH, UNITED STATES
Bekele, Haimanot, Cincinnati, OH, UNITED STATES
PI US 2003044437 A1 20030306
AI US 2002-158506 A1 20020530 (10)
PRAI US 2001-294275P 20010530 (60)
DT Utility
FS APPLICATION
LREP THE PROCTER & GAMBLE COMPANY, INTELLECTUAL PROPERTY DIVISION, WINTON HILL TECHNICAL CENTER - BOX 161, 6110 CENTER HILL AVENUE, CINCINNATI, OH, 45224
CLMN Number of Claims: 15
ECL Exemplary Claim: 1
DRWN No Drawings
LN.CNT 1717
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The present invention relates to cosmetic compositions that comprise a safe and effective amount of a bonding agent comprising the structure ##STR1##

wherein X represents a cosmetic benefit agent; L represents an optional chemical linker; and R represents a hydrocarbon chain that optionally contains heteroatoms; and a cosmetically acceptable carrier for the bonding agent wherein the composition is administered topically to a mammalian proteinaceous substrate and wherein the bonding agent reacts with a protein contained in the substrate such that the bonding agent is covalently attached to the substrate. The invention further relates to methods of using the compositions described above as well as various products that include the claimed compositions.

TI Topical composition comprising a susbstituted cosmetic bonding agent

SUMM . . . acid, retinol, retinoids, retinyl palmitate, retinyl proprionate, etc.), Vitamin B (e.g., niacin, niacinamide, riboflavin, pantothenic acid, etc.), Vitamin C (e.g., **ascorbic** acid, etc.), Vitamin D (e.g., ergosterol, ergocalciferol, cholecalciferol, etc.), Vitamin E (e.g., tocopherol acetate, etc.), and Vitamin K (e.g., phytonadione,. . .

SUMM . . . 2,4,4'-trichloro-2'-hydroxy diphenyl ether, 3,4,4'-trichlorobanilide, azelaic acid and its derivatives,

phenoxyethanol, phenoxypropanol, phenoxyisopropanol, ethyl acetate, clindamycin and meclocycline; sebostats such as **flavonoids**; and bile salts such as scymnol sulfate and its derivatives, deoxycholate, and cholate.

SUMM [0082] **Flavonoids**

SUMM [0083] The cosmetic benefit agents of the present invention may also be a **flavonoid** compound. **Flavonoids** are broadly disclosed in U.S. Pat. Nos. 5,686,082 and 5,686,367. **Flavonoids** suitable for use in the present invention are flavanones selected from the group consisting of unsubstituted flavanones, mono-substituted flavanones, and. . . mixtures thereof; chalcones selected from the group consisting of unsubstituted chalcones, mono-substituted chalcones, di-substituted chalcones, tri-substituted chalcones, and mixtures thereof; **flavones** selected from the group consisting of unsubstituted **flavones**, mono-substituted **flavones**, di-substituted **flavones**, and mixtures thereof; one or more isoflavones; coumarins selected from the group consisting of unsubstituted coumarins, mono-substituted coumarins, di-substituted coumarins,. . . or more chromanols; isomers (e.g., cis/trans isomers) thereof; and mixtures thereof. By the term "substituted" as used herein relative to **flavonoids** means **flavonoids** wherein one or more hydrogen atom of the **flavonoid** has been independently replaced with hydroxyl, C1-C8 alkyl, C1-C4 alkoxyl, O-glycoside, and the like or a mixture of these substituents.

SUMM [0084] Examples of suitable **flavonoids** include, but are not limited to, unsubstituted flavanone, mono-hydroxy flavanones (e.g., 2'-hydroxy flavanone, 6-hydroxy flavanone, 7-hydroxy flavanone, etc.), mono-alkoxy flavanones. . . chalcone, 2,2'-dihydroxy chalcone, 2',3-dihydroxy chalcone, 2',5'-dihydroxy chalcone, etc.), and tri-hydroxy chalcones (e.g., 2',3',4'-trihydroxy chalcone, 4,2',4'-trihydroxy chalcone, 2,2',4'-trihydroxy chalcone, etc.), unsubstituted **flavone**, 7,2'-dihydroxy **flavone**, 3',4'-dihydroxy naphthoflavone, 4'-hydroxy **flavone**, 5,6-benzoflavone, and 7,8-benzoflavone, unsubstituted isoflavone, daidzein (7,4'-dihydroxy isoflavone), 5,7-dihydroxy4'-methoxy isoflavone, soy isoflavones (a mixture extracted from soy), unsubstituted coumarin, 4-hydroxy. . .

SUMM . . . also further be derivatized (e.g., a glycoside, an ester or an ether derivative prepared following extraction from a natural source). **Flavonoid** compounds useful herein are commercially available from a number of sources, e.g., Indofine Chemical Company, Inc. (Somerville, N.J.), Steraloids, Inc.. . .

SUMM [0087] Mixtures of the above **flavonoid** compounds may also be used.

SUMM [0088] The herein described **flavonoid** compounds are preferably present in the instant invention at concentrations of from about 0.01% to about 20%, more preferably from. . .

SUMM . . . of a skin lightening agent. Suitable skin lightening agents include those known in the art, including kojic acid, arbutin, deoxyarbutin, **ascorbic** acid and derivatives thereof, e.g., magnesium **ascorbyl** phosphate or sodium **ascorbyl** phosphate or other salts of **ascorbyl** phosphate.

SUMM . . . vinyl pyrrolidone), opacifying agents, pH adjusters, propellants, reducing agents, sequestrants, skin bleaching agents (or lightening agents) (e.g., hydroquinone, kojic acid, **ascorbic** acid, magnesium **ascorbyl** phosphate, **ascorbyl** glucosamine), skin soothing and/or healing agents (e.g., panthenol and derivatives (e.g., ethyl panthenol), aloe vera, pantothenic acid and its derivatives,. . .

SUMM . . . 6) methods of providing antiperspirant efficacy to skin; 7) methods of preventing, retarding, and/or treating wrinkles; 8) methods of providing **UV protection** to skin; 9) methods of

preventing, retarding, and/or treating cellulite; 10) methods of preventing, retarding, and/or controlling the appearance of. . .

DETD [0176] Antioxidant-Modified Bonding Agent--Modified **Ascorbate** ##STR12##

DETD . . . 0.544

Part A - Neutralization

Premix

(A)	USP Water	3.013
(A)	Sodium Hydroxide	0.0125

Part B - Niacinamide Premix

(B)	USP Water	5.000
(B)	Panthenol	0.500
(B)	Modified **Ascorbate** (from Example 1)	2.000
(B)	FD & C Yellow No. 5	0.00115
(B)	FD & C Red No. 40	0.00050
(C)	Sefa Cottonate. . .	

DETD . . . an appropriate container prepare Part D (Particulate Premix). Mix by mixer until homogenous. In an appropriate container, prepare the modified **ascorbate** premix. Add Part B ingredients into container, except FD&C Yellow/Red. Heat to no higher than 40.degree. C. while mixing until modified **ascorbate** is dissolved. Add FD&C Yellow/Red. Mix until dissolved. Prepare the Oil Phase. Add part C ingredients to oil phase except. . . 60.degree. C. and add sepigel. Switch to U-blade once formula looks smooth. Cool batch to 50.degree. C., then add modified **ascorbate** premix, Benzyl alcohol and Q2-1402. Cool batch to 40.degree. C. with periodic spatula mixing to insure homogeneity. When temperature reaches. . .

DETD [0198] In a suitable vessel, neat, chemically synthesized modified **ascorbate** is dissolved using an appropriate solvent. The modified asdcorbate is then recrystallized by sublimation method. Next, the recrystallized modified **ascorbate** is milled to the appropriate particle size.

DETD . . . form a solution of these materials. Next, the aluminum chlorohydroxide is added with gentle agitation, followed by the recrystallized modified **ascorbate** and remaining ingredients. The solution is mixed until a homogenous suspension is formed. The suspension is cooled to a temperature. . .

L10 ANSWER 8 OF 31 USPATFULL

AN 2003:3085 USPATFULL

TI Topical composition comprising a functionally alkylating cosmetic bonding agent

IN Bekele, Haimanot, Cincinnati, OH, UNITED STATES

PA The Procter & Gamble Company (U.S. corporation)

PI US 2003003119 A1 20030102
US 6589542 B2 20030708

AI US 2002-92141 A1 20020306 (10)

PRAI US 2001-274057P 20010307 (60)

DT Utility

FS APPLICATION

LREP THE PROCTER & GAMBLE COMPANY, INTELLECTUAL PROPERTY DIVISION, WINTON HILL TECHNICAL CENTER - BOX 161, 6110 CENTER HILL AVENUE, CINCINNATI, OH, 45224

CLMN Number of Claims: 17

ECL Exemplary Claim: 1

DRWN No Drawings

LN.CNT 1750

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention relates to cosmetic compositions that comprise: a) a safe and effective amount of a functionally alkylating bonding agent having the structure

R--X

wherein

X represents a cosmetic benefit agent that may or may not be attached to a chemical linker;

R is selected from the group consisting of COCH.sub.2Cl, COCH.sub.2Br, COCH.sub.21, Cl, Br, I, N.sub.3, CH.sub.2OM', CH.sub.2OT', CH.sub.2OT", sulfonic esters; and wherein M' is ##STR1##

b) a cosmetically acceptable carrier for the bonding agent wherein the composition is administered topically to mammalian proteinaceous substrates and wherein the bonding agent reacts with a protein contained in the substrate such that the bonding agent, and thus the cosmetic benefit agent, is covalently attached to the substrate. The invention further relates to methods of using the compositions described above as well as various products that include the claimed compositions.

TI Topical composition comprising a functionally alkylating cosmetic bonding agent

SUMM . . . acid, retinol, retinoids, retinyl palmitate, retinyl proprionate, etc.), Vitamin B (e.g., niacin, niacinamide, riboflavin, pantothenic acid, etc.), Vitamin C (e.g., **ascorbic** acid, etc.), Vitamin D (e.g., ergosterol, ergocalciferol, cholecalciferol, etc.), Vitamin E (e.g., tocopherol acetate, etc.), and Vitamin K (e.g., phytonadione,. . .

SUMM . . . 2,4,4'-trichloro-2'-hydroxy diphenyl ether, 3,4,4'-trichlorobanilide, azelaic acid and its derivatives, phenoxyethanol, phenoxypropanol, phenoxyisopropanol, ethyl acetate, clindamycin and meclocycline; sebostats such as **flavonoids**; and bile salts such as scymnol sulfate and its derivatives, deoxycholate, and cholate.

SUMM [0085] **Flavonoids**

SUMM [0086] The cosmetic benefit agents of the present invention may also be a **flavonoid** compound. **Flavonoids** are broadly disclosed in U.S. Pat. Nos 5,686,082 and 5,686,367. **Flavonoids** suitable for use in the present invention are flavanones selected from the group consisting of unsubstituted flavanones, mono-substituted flavanones, and. . . mixtures thereof; chalcones selected from the group consisting of unsubstituted chalcones, mono-substituted chalcones, di-substituted chalcones, tri-substituted chalcones, and mixtures thereof; **flavones** selected from the group consisting of unsubstituted **flavones**, mono-substituted **flavones**, di-substituted **flavones**, and mixtures thereof; one or more isoflavones; coumarins selected from the group consisting of unsubstituted coumarins, mono-substituted coumarins, di-substituted coumarins,. . . one or more chromanols; isomers (e.g., cis/trans isomers) thereof; and mixtures thereof. By the term "substituted" as used herein means **flavonoids** wherein one or more hydrogen atom of the **flavonoid** has been independently replaced with hydroxyl, C1-C8 alkyl, C1-C4 alkoxyl, 0-glycoside, and the like or a mixture of these substituents.

SUMM [0087] Examples of suitable **flavonoids** include, but are not limited to, unsubstituted flavanone, mono-hydroxy flavanones (e.g., 2'-hydroxy flavanone, 6-hydroxy flavanone, 7-hydroxy flavanone, etc.), mono-alkoxy flavanones. . . 2', 5'-dihydroxy chalcone, etc.), and tri-hydroxy chalcones (e.g., 2', 3', 4'-trihydroxy chalcone, 4,2', 4'-trihydroxy chalcone, 2,2', 4'-trihydroxy chalcone, etc.), unsubstituted **flavone**, 7,2'-dihydroxy **flavone**, 3', 4'-dihydroxy naphthoflavone, 4'-hydroxy **flavone**, 5,6-benzoflavone, and 7,8-benzoflavone, unsubstituted isoflavone,

daidzein (7,4'-dihydroxy isoflavone), 5,7-dihydroxy-4'-methoxy isoflavone, soy isoflavones (a mixture extracted from soy), unsubstituted coumarin, 4-hydroxy. . .

SUMM . . . also further be derivatized (e.g., a glycoside, an ester or an ether derivative prepared following extraction from a natural source). **Flavonoid** compounds useful herein are commercially available from a number of sources, e.g., Indofine Chemical Company, Inc. (Somerville, N.J.), Steraloids, Inc.. . .

SUMM [0090] Mixtures of the above **flavonoid** compounds may also be used.

SUMM [0091] The herein described **flavonoid** compounds are preferably present in the instant invention at concentrations of from about 0.01% to about 20%, more preferably from. . .

SUMM . . . of a skin lightening agent. Suitable skin lightening agents include those known in the art, including kojic acid, arbutin, deoxyarbutin, **ascorbic** acid and derivatives thereof, e.g., magnesium **ascorbyl** phosphate or sodium **ascorbyl** phosphate or other salts of **ascorbyl** phosphate.

SUMM . . . pyrrolidone), humectants, opacifying agents, pH adjusters, propellants, reducing agents, sequestrants, skin bleaching agents (or lightening agents) (e.g., hydroquinone, kojic acid, **ascorbic** acid, magnesium **ascorbyl** phosphate, **ascorbyl** glucosamine), skin soothing and/or healing agents (e.g., panthenol and derivatives (e.g., ethyl panthenol), aloe vera, pantothenic acid and its derivatives,. . .

SUMM . . . 6) methods of providing antiperspirant efficacy to skin; 7) methods of preventing, retarding, and/or treating wrinkles; 8) methods of providing **UV protection** to skin; 9) methods of preventing, retarding, and/or treating cellulite; 10) methods of preventing, retarding, and/or controlling the appearance of. . .

DETD [0179] Antioxidant-modified bonding agent--Modified **ascorbate** wherein R is N.sub.3, Cl, Br, or I ##STR9##

DETD [0181] Antioxidant-modified bonding agent--Modified **ascorbate** wherein R is a myslate, tosylate, or triflate ##STR11##

DETD . . . Dioxide 0.544

Part A- Neutralization Premix

(A)	USP Water	3.013
(A)	Sodium Hydroxide	0.0125

Part B - Niacinamide Premix

(B)	USP Water	5.000
(B)	Panthenol	0.500
(B)	Modified **Ascorbate** (from Example 1 or 3, respectively)	2.000
(B)	FD&C Yellow No. 5	0.00115
(B)	FD&C Red No. 40	0.00050
(C)	Sefa Cottonate	0.670

(C). . .

DETD . . . an appropriate container prepare Part D (Particulate Premix). Mix by mixer until homogenous. In an appropriate container, prepare the modified **ascorbate** premix. Add Part B ingredients into container, except FD&C Yellow/Red. Heat to no higher than 40.degree. C. while mixing until modified **ascorbate** is dissolved. Add FD&C Yellow/Red. Mix until dissolved. Prepare the Oil Phase. Add part C ingredients to oil phase except. . . 60.degree. C. and add sepigel. Switch to U-blade once formula looks smooth. Cool batch to 50.degree. C., then add modified **ascorbate** premix, Benzyl alcohol and Q2-1402. Cool batch to 40.degree. C. with periodic spatula mixing to insure homogeneity. When temperature reaches. . .

DETD [0213] In a suitable vessel, neat, chemically synthesized modified **ascorbate** is dissolved using an appropriate solvent. The

modified asdcorbate is then recrystallized by sublimation method. Next, the recrystallized modified **ascorbate** is milled to the appropriate particle size.

DETD . . . form a solution of these materials. Next, the aluminum chlorohydroxide is added with gentle agitation, followed by the recrystallized modified **ascorbate** and remaining ingredients. The solution is mixed until a homogenous suspension is formed. The suspension is cooled to a temperature. . .

CLM What is claimed is:
16. A method of providing **UV protection** to skin wherein said method comprises topically applying the composition of claim 1 to skin wherein X is a sunscreen.
. . .

L10 ANSWER 9 OF 31 USPATFULL
AN 2003:3031 USPATFULL
TI Cosmetic compositions exhibiting characteristic first derivative spectral curves and associated methods
IN Kalla, Karen Kay, Cincinnati, OH, UNITED STATES
Canter, Marcia Lang, Hamilton, OH, UNITED STATES
PA The Procter & Gamble Company (U.S. corporation)
PI US 2003003065 A1 20030102
AI US 2002-174339 A1 20020618 (10)
PRAI US 2001-299017P 20010618 (60)
DT Utility
FS APPLICATION
LREP THE PROCTER & GAMBLE COMPANY, INTELLECTUAL PROPERTY DIVISION, WINTON HILL TECHNICAL CENTER - BOX 161, 6110 CENTER HILL AVENUE, CINCINNATI, OH, 45224
CLMN Number of Claims: 22
ECL Exemplary Claim: 1
DRWN 5 Drawing Page(s)
LN.CNT 2158
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Cosmetic compositions and cosmetic compositions that have been adapted for delivery to provide applied cosmetic compositions that have a spectrophotometric curve, wherein a first derivative of the spectrophotometric curve comprises: a) a maximum peak in the region of from about 430 nm to about 520 nm occurs at a wavelength not greater than about 480 nm; b) a maximum peak in the region of from about 420 nm to about 650 nm occurs at a wavelength of from about 570 nm to about 630 nm; and c) a minimum valley in the region of from about 520 nm to about 580 nm has a .DELTA.%R/.DELTA..lambda. of less than or equal to about 0.03, wherein R is reflectance and .lambda. is wavelength, and wherein the cosmetic composition comprises a mixture of at least two colorants, wherein a first derivative of a spectrophotometric curve of each of the individual colorants does not exhibit (a), (b) and (c). Methods for providing such compositions comprise adding colorants to a cosmetic composition to provide the composition with a spectrophotometric curve as described.

TI Cosmetic compositions exhibiting characteristic first derivative spectral curves and associated methods

DETD . . . pyrrolidone), humectants, opacifying agents, pH adjusters, propellants, reducing agents, sequestrants, skin bleaching agents (or lightening agents) (e.g., hydroquinone, kojic acid, **ascorbic** acid, magnesium **ascorbyl** phosphate, **ascorbyl** glucosamine), skin soothing and/or healing agents (e.g., panthenol and derivatives (e.g., ethyl panthenol), aloe vera, pantothenic acid and its derivatives,. . .

DETD [0073] Anti-oxidants/radical scavengers such as **ascorbic** acid (vitamin C) and its salts, **ascorbyl** esters of fatty acids, **ascorbic** acid derivatives (e.g., magnesium **ascorbyl**

phosphate, sodium **ascorbyl** phosphate, **ascorbyl** sorbate), tocopherol (vitamin E), tocopherol acetate, other esters of tocopherol, butylated hydroxy benzoic acids and their salts, 6-hydroxy-2,5,7,8-tetramethylchroman-2-carboxylic acid (commercially. . .

DETD [0077] **Flavonoids**

DETD [0078] The compositions of the present invention may contain a safe and effective amount of **flavonoid** compound. **Flavonoids** are broadly disclosed in U.S. Pat. Nos. 5,686,082 and 5,686,367, both of which are herein incorporated by reference. **Flavonoids** suitable for use in the present invention are flavanones selected from unsubstituted flavanones, mono-substituted flavanones, and mixtures thereof; chalcones selected from unsubstituted chalcones, mono-substituted chalcones, di-substituted chalcones, tri-substituted chalcones, and mixtures thereof; **flavones** selected from unsubstituted **flavones**, mono-substituted **flavones**, di-substituted **flavones**, and mixtures thereof; one or more isoflavones; coumarins selected from unsubstituted coumarins, mono-substituted coumarins, di-substituted coumarins, and mixtures thereof; chromones. . . one or more chromanols; isomers (e.g., cis/trans isomers) thereof; and mixtures thereof. By the term "substituted" as used herein means **flavonoids** wherein one or more hydrogen atom of the **flavonoid** has been independently replaced with hydroxyl, C1-C8 alkyl, C1-C4 alkoxyl, O-glycoside, and the like or a mixture of these substituents.

DETD [0079] Examples of suitable **flavonoids** include, but are not limited to, unsubstituted flavanone, mono-hydroxy flavanones (e.g., 2'-hydroxy flavanone, 6-hydroxy flavanone, 7-hydroxy flavanone, etc.), mono-alkoxy flavanones. . . chalcone, 2,2'-dihydroxy chalcone, 2',3-dihydroxy chalcone, 2',5'-dihydroxy chalcone, etc.), and tri-hydroxy chalcones (e.g., 2',3',4'-trihydroxy chalcone, 4,2',4'-trihydroxy chalcone, 2,2',4'-trihydroxy chalcone, etc.), unsubstituted **flavone**, 7,2'-dihydroxy **flavone**, 3',4'-dihydroxy naphthoflavone, 4'-hydroxy **flavone**, 5,6-benzoflavone, and 7,8-benzoflavone, unsubstituted isoflavone, daidzein (7,4'-dihydroxy isoflavone), 5,7-dihydroxy-4'-methoxy isoflavone, soy isoflavones (a mixture extracted from soy), unsubstituted coumarin, 4-hydroxy. . .

DETD [0080] Preferred for use herein are unsubstituted flavanone, methoxy flavanones, unsubstituted chalcone, 2',4-dihydroxy chalcone, isoflavone, **flavone**, and mixtures thereof. More preferred are soy isoflavones.

DETD [0081] Mixtures of the above **flavonoid** compounds may also be used.

DETD [0082] The herein described **flavonoid** compounds are preferably present in the instant invention at concentrations of from about 0.01% to about 20%, more preferably from. . .

DETD . . . composition, of a skin lightening agent. Suitable skin lightening agents include those known in the art, including kojic acid, arbutin, **ascorbic** acid and derivatives thereof (e.g., magnesium **ascorbyl** phosphate or sodium **ascorbyl** phosphate), and extracts (e.g., mulberry extract, placental extract). Skin lightening agents suitable for use herein also include those described in. . .

DETD . . . of improving the natural appearance of skin; 2) methods of applying a color cosmetic to skin; 3) methods of providing **UV protection** to skin; 4) methods of masking the appearance of cellulite; 5) methods of preventing, retarding, and/or controlling the appearance of. . .

L10 ANSWER 10 OF 31 USPATFULL

AN 2003:3030 USPATFULL

TI Cosmetic compositions comprising discrete color domains and associated methods
IN Kalla, Karen Kay, Cincinnati, OH, UNITED STATES
Canter, Marcia Lang, Hamilton, OH, UNITED STATES
PI US 2003003064 A1 20030102
AI US 2002-174247 A1 20020618 (10)
PRAI US 2001-298998P 20010618 (60)
DT Utility
FS APPLICATION
LREP THE PROCTER & GAMBLE COMPANY, INTELLECTUAL PROPERTY DIVISION, WINTON HILL TECHNICAL CENTER - BOX 161, 6110 CENTER HILL AVENUE, CINCINNATI, OH, 45224
CLMN Number of Claims: 19
ECL Exemplary Claim: 1
DRWN 2 Drawing Page(s)
LN.CNT 1853
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Cosmetic compositions and cosmetic compositions that have been adapted for delivery to provide applied cosmetic compositions that have at least two discrete color domains, each of which comprises at least one colorant, wherein the color domains are not readily discernible individually to the naked eye but are distinguishable within the cosmetic composition when viewed under magnification. Methods for providing such compositions comprise adding at least two discrete color domains to a cosmetic composition to provide the composition with a desired color tone, effect and/or variation.
TI Cosmetic compositions comprising discrete color domains and associated methods
DETD . . . pyrrolidone), humectants, opacifying agents, pH adjusters, propellants, reducing agents, sequestrants, skin bleaching agents (or lightening agents) (e.g., hydroquinone, kojic acid, **ascorbic** acid, magnesium **ascorbyl** phosphate, **ascorbyl** glucosamine), skin soothing and/or healing agents (e.g., panthenol and derivatives (e.g., ethyl panthenol), aloe vera, pantothenic acid and its derivatives,. . .
DETD [0069] Anti-oxidants/radical scavengers such as **ascorbic** acid (vitamin C) and its salts, **ascorbyl** esters of fatty acids, **ascorbic** acid derivatives (e.g., magnesium **ascorbyl** phosphate, sodium **ascorbyl** phosphate, **ascorbyl** sorbate), tocopherol (vitamin E), tocopherol acetate, other esters of tocopherol, butylated hydroxy benzoic acids and their salts, 6-hydroxy-2,5,7,8-tetramethylchroman-2-carboxylic acid (commercially. . .
DETD [0073] **Flavonoids**
DETD [0074] The compositions of the present invention may contain a safe and effective amount of **flavonoid** compound. **Flavonoids** are broadly disclosed in U.S. Pat. Nos. 5,686,082 and 5,686,367, both of which are herein incorporated by reference. **Flavonoids** suitable for use in the present invention are flavanones selected from unsubstituted flavanones, mono-substituted flavanones, and mixtures thereof; chalcones selected from unsubstituted chalcones, mono-substituted chalcones, di-substituted chalcones, tri-substituted chalcones, and mixtures thereof; **flavones** selected from unsubstituted **flavones**, mono-substituted **flavones**, di-substituted **flavones**, and mixtures thereof; one or more isoflavones; coumarins selected from unsubstituted coumarins, mono-substituted coumarins, di-substituted coumarins, and mixtures thereof; chromones. . . one or more chromanols; isomers (e.g., cis/trans isomers) thereof; and mixtures thereof. By the term "substituted" as used herein means **flavonoids** wherein one or more hydrogen atom of the **flavonoid** has been independently replaced with hydroxyl, C1-C8 alkyl, C1-C4 alkoxyl, O-glycoside, and the

like or a mixture of these substituents.

DETD [0075] Examples of suitable **flavonoids** include, but are not limited to, unsubstituted flavanone, mono-hydroxy flavanones (e.g., 2'-hydroxy flavanone, 6-hydroxy flavanone, 7-hydroxy flavanone, etc.), mono-alkoxy flavanones. . . chalcone, 2,2'-dihydroxy chalcone, 2',3-dihydroxy chalcone, 2',5'-dihydroxy chalcone, etc.), and tri-hydroxy chalcones (e.g., 2',3',4'-trihydroxy chalcone, 4,2',4'-trihydroxy chalcone, 2,2',4'-trihydroxy chalcone, etc.), unsubstituted **flavone**, 7,2'-dihydroxy **flavone**, 3',4'-dihydroxy naphthoflavone, 4'-hydroxy **flavone**, 5,6-benzoflavone, and 7,8-benzoflavone, unsubstituted isoflavone, daidzein (7,4'-dihydroxy isoflavone), 5,7-dihydroxy-4'-methoxy isoflavone, soy isoflavones (a mixture extracted from soy), unsubstituted coumarin, 4-hydroxy. . .

DETD [0076] Preferred for use herein are unsubstituted flavanone, methoxy flavanones, unsubstituted chalcone, 2',4-dihydroxy chalcone, isoflavone, **flavone**, and mixtures thereof. More preferred are soy isoflavones.

DETD [0077] Mixtures of the above **flavonoid** compounds may also be used.

DETD [0078] The herein described **flavonoid** compounds are preferably present in the instant invention at concentrations of from about 0.01% to about 20%, more preferably from. . .

DETD . . . composition, of a skin lightening agent. Suitable skin lightening agents include those known in the art, including kojic acid, arbutin, **ascorbic** acid and derivatives thereof (e.g., magnesium **ascorbyl** phosphate or sodium **ascorbyl** phosphate), and extracts (e.g., mulberry extract, placental extract). Skin lightening agents suitable for use herein also include those described in. . .

DETD . . . natural appearance of skin; 2) methods of applying a color cosmetic to skin, lips, and/or nails; 3) methods of providing **UV protection** to skin, lips, and/or nails; 4) methods of masking the appearance of cellulite, 5) methods of preventing, retarding, and/or controlling. . .

L10 ANSWER 11 OF 31 USPATFULL

AN 2002:322074 USPATFULL

TI Topical composition comprising a three membered cyclic compound-based cosmetic bonding agent

IN Bekele, Haimanot, Cincinnati, OH, UNITED STATES

PI US 2002182236 A1 20021205
US 6565865 B2 20030520

AI US 2002-92330 A1 20020306 (10)

PRAI US 2001-273905P 20010307 (60)

DT Utility

FS APPLICATION

LREP THE PROCTER & GAMBLE COMPANY, INTELLECTUAL PROPERTY DIVISION, WINTON HILL TECHNICAL CENTER - BOX 161, 6110 CENTER HILL AVENUE, CINCINNATI, OH, 45224

CLMN Number of Claims: 17

ECL Exemplary Claim: 1

DRWN No Drawings

LN.CNT 1700

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention relates to cosmetic compositions that comprise: a) a safe and effective amount of a three membered functional cyclic bonding agent having the structure ##STR1##

wherein X represents a cosmetic benefit agent that may or may not be attached to a chemical linker and Y represents O, NH, S, or Se; and b) a cosmetically acceptable carrier for the bonding agent wherein the

composition is administered topically to mammalian proteinaceous substrates and wherein the bonding agent reacts with a protein contained in the substrate such that the bonding agent, and thus the cosmetic benefit agent, is covalently attached to the substrate. The invention further relates to methods of using the compositions described above as well as various products that include the claimed compositions.

TI Topical composition comprising a three membered cyclic compound-based cosmetic bonding agent

SUMM . . . acid, retinol, retinoids, retinyl palmitate, retinyl proprionate, etc.), Vitamin B (e.g., niacin, niacinamide, riboflavin, pantothenic acid, etc.), Vitamin C (e.g., **ascorbic** acid, etc.), Vitamin D (e.g., ergosterol, ergocalciferol, cholecalciferol, etc.), Vitamin E (e.g., tocopherol acetate, etc.), and Vitamin K (e.g., phytonadione,. . .

SUMM . . . 2,4,4'-trichloro-2'-hydroxy diphenyl ether, 3,4,4'-trichlorobanilide, azelaic acid and its derivatives, phenoxyethanol, phenoxypropanol, phenoxyisopropanol, ethyl acetate, clindamycin and meclocycline; sebostats such as **flavonoids**; and bile salts such as scymnol sulfate and its derivatives, deoxycholate, and cholate.

SUMM [0075] **Flavonoids**

SUMM [0076] The cosmetic benefit agents of the present invention may also be a **flavonoid** compound. **Flavonoids** are broadly disclosed in U.S. Pat. Nos. 5,686,082 and 5,686,367. **Flavonoids** suitable for use in the present invention are flavanones selected from the group consisting of unsubstituted flavanones, mono-substituted flavanones, and. . . mixtures thereof; chalcones selected from the group consisting of unsubstituted chalcones, mono-substituted chalcones, di-substituted chalcones, tri-substituted chalcones, and mixtures thereof; **flavones** selected from the group consisting of unsubstituted **flavones**, mono-substituted **flavones**, di-substituted **flavones**, and mixtures thereof; one or more isoflavones; coumarins selected from the group consisting of unsubstituted coumarins, mono-substituted coumarins, di-substituted coumarins,. . . one or more chromanols; isomers (e.g., cis/trans isomers) thereof; and mixtures thereof. By the term "substituted" as used herein means **flavonoids** wherein one or more hydrogen atom of the **flavonoid** has been independently replaced with hydroxyl, C1-C8 alkyl, C1-C4 alkoxyl, O-glycoside, and the like or a mixture of these substituents.

SUMM [0077] Examples of suitable **flavonoids** include, but are not limited to, unsubstituted flavanone, mono-hydroxy flavanones (e.g., 2'-hydroxy flavanone, 6-hydroxy flavanone, 7-hydroxy flavanone, etc.), mono-alkoxy flavanones. . . chalcone, 2,2'-dihydroxy chalcone, 2',3-dihydroxy chalcone, 2',5'-dihydroxy chalcone, etc.), and tri-hydroxy chalcones (e.g., 2',3',4'-trihydroxy chalcone, 4,2',4'-trihydroxy chalcone, 2,2',4'-trihydroxy chalcone, etc.), unsubstituted **flavone**, 7,2'-dihydroxy **flavone**, 3',4'-dihydroxy naphthoflavone, 4'-hydroxy **flavone**, 5,6-benzoflavone, and 7,8-benzoflavone, unsubstituted isoflavone, daidzein (7,4'-dihydroxy isoflavone), 5,7-dihydroxy-4'-methoxy isoflavone, soy isoflavones (a mixture extracted from soy), unsubstituted coumarin, 4-hydroxy. . .

SUMM . . . also further be derivatized (e.g., a glycoside, an ester or an ether derivative prepared following extraction from a natural source). **Flavonoid** compounds useful herein are commercially available from a number of sources, e.g., Indofine Chemical Company, Inc. (Somerville, N.J.), Steraloids, Inc.. . .

SUMM [0080] Mixtures of the above **flavonoid** compounds may also be used.

SUMM [0081] The herein described **flavonoid** compounds are preferably present in the instant invention at concentrations of from about 0.01%

to about 20%, more preferably from. . .

SUMM . . . of a skin lightening agent. Suitable skin lightening agents include those known in the art, including kojic acid, arbutin, deoxyarbutin, **ascorbic** acid and derivatives thereof, e.g., magnesium **ascorbyl** phosphate or sodium **ascorbyl** phosphate or other salts of **ascorbyl** phosphate.

SUMM . . . pyrrolidone), humectants, opacifying agents, pH adjusters, propellants, reducing agents, sequestrants, skin bleaching agents (or lightening agents) (e.g., hydroquinone, kojic acid, **ascorbic** acid, magnesium **ascorbyl** phosphate, **ascorbyl** glucosamine), skin soothing and/or healing agents (e.g., panthenol and derivatives (e.g., ethyl panthenol), aloe vera, pantothenic acid and its derivatives,. . .

SUMM . . . 6) methods of providing antiperspirant efficacy to skin; 7) methods of preventing, retarding, and/or treating wrinkles; 8) methods of providing **UV protection** to skin; 9) methods of *preventing, retarding, and/or treating cellulite; 10) methods of preventing, retarding, and/or controlling the appearance of. . .

DETD Antioxidant-modified bonding agent--Modified **ascorbate**

DETD . . . Kobo Titanium Dioxide 0.544

Part A-
Neutralization Premix

(A)	USP Water	3.013
(A)	Sodium Hydroxide	0.0125

Part B-
Niacinamide Premix

(B)	USP Water	5.000
(B)	Panthenol	0.500
(B)	Modified **Ascorbate** (from Example 8)	2.000
(B)	FD&C Yellow No. 5	0.00115
(B)	FD&C Red No. 40	0.00050
(C)	Sefa Cottonate	0.670
(C)	Isopropyl Isostearate	1.330

(C). . .

DETD . . . an appropriate container prepare Part D (Particulate Premix). Mix by mixer until homogenous. In an appropriate container, prepare the modified **ascorbate** premix. Add Part B ingredients into container, except FD&C Yellow/Red. Heat to no higher than 40.degree. C. while mixing until modified **ascorbate** is dissolved. Add FD&C Yellow/Red. Mix until dissolved. Prepare the Oil Phase. Add part C ingredients to oil phase except. . . 60.degree. C. and add sepigel. Switch to U-blade once formula looks smooth. Cool batch to 50.degree. C., then add modified **ascorbate** premix, Benzyl alcohol and Q2-1402. Cool batch to 40.degree. C. with periodic spatula mixing to insure homogeneity. When temperature reaches. . .

DETD [0192] In a suitable vessel, neat, chemically synthesized modified **ascorbate** is dissolved using an appropriate solvent. The modified asdcorbate is then recrystallized by sublimation method. Next, the recrystallized modified **ascorbate** is milled to the appropriate particle size.

DETD . . . form a solution of these materials. Next, the aluminum chlorohydroxide is added with gentle agitation, followed by the recrystallized modified **ascorbate** and remaining ingredients. The solution is mixed until a homogenous suspension is formed. The suspension is cooled to a temperature. . .

CLM What is claimed is:

16. A method of providing **UV protection** to skin wherein said method comprises topically applying the composition of claim 1 to skin wherein X is a sunscreen.

. . .

L10 ANSWER 12 OF 31 USPATFULL
AN 2002:322072 USPATFULL
TI Self-foaming or foam-like preparations
IN Riedel, Heidi, Hamburg, GERMANY, FEDERAL REPUBLIC OF
Kropke, Rainer, Schenefeld, GERMANY, FEDERAL REPUBLIC OF
Bleckmann, Andreas, Ahrensburg, GERMANY, FEDERAL REPUBLIC OF
PA Beiersdorf Aktiengesellschaft (non-U.S. corporation)
PI US 2002182234 A1 20021205
AI US 2001-16964 A1 20011214 (10)
PRAI DE 2000-10063342 20001219
DT Utility
FS APPLICATION
LREP KURT BRISCOE, NORRIS, MCLAUGHLIN & MARCUS, P.A., 220 EAST 42ND STREET, 30TH FLOOR, NEW YORK, NY, 10017
CLMN Number of Claims: 15
ECL Exemplary Claim: 1
DRWN No Drawings
LN.CNT 1526
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Self-foaming and/or foam-like cosmetic or dermatological preparations which comprise

I. an emulsifier system which consists of

A. at least one emulsifier A chosen from the group of wholly neutralized, partially neutralized or unneutralized branched and/or unbranched, saturated and/or unsaturated fatty acids having a chain length of from 10 to 40 carbon atoms,

B. at least one emulsifier B chosen from the group of polyethoxylated fatty acid esters having a chain length of from 10 to 40 carbon atoms and a degree of ethoxylation of from 5 to 100 and

C. at least one coemulsifier C chosen from the group of saturated and/or unsaturated, branched and/or unbranched fatty alcohols having a chain length of from 10 to 40 carbon atoms and

II. 1 to 90% by volume, based on the total volume of the preparation, of at least one gas chosen from the group consisting of air, oxygen, nitrogen, helium, argon, nitrous oxide (N.sub.2O) and carbon dioxide (CO.sub.2).

TI Self-foaming or foam-like preparations
SUMM . . . linoleic acid, oleic acid), folic acid and derivatives thereof, ubiquinone and ubiquinol and derivatives thereof, vitamin C and derivatives (e.g. **ascorbyl** palmitate, Mg **ascorbyl** phosphate, **ascorbyl** acetate), tocopherols and derivatives (e.g. vitamin E acetate), vitamin A and derivatives (vitamin A palmitate) and coniferyl benzoate of benzoin. . .
SUMM [0055] For the purposes of the present invention, water-soluble antioxidants, such as, for example, vitamins, e.g. **ascorbic** acid and derivatives thereof, can be used particularly advantageously.
SUMM [0066] Catechins are a group of compounds which are to be regarded as hydrogenated **flavones** or anthocyanidines and are derivatives of "catechin" (catechol, 3,3',4',5,7-flavanpentol, 2-(3,4-dihydroxyphenyl)chroman-3,5,7-triol). Epicatechin ((2R,3R)-3,3',4',5,7-flavanpentol) is also an advantageous active ingredient for the. . .
SUMM [0069] **Flavone** and its derivatives (also often collectively called "**flavones**") are also advantageous active ingredients for the purposes of the present invention. They are characterized by the following basic structure. . .
SUMM [0070] Some of the more important **flavones** which can also preferably be used in preparations according to the invention are given

in the table below:

OH substitution positions

	3	5	7	8	2'	3'	4'	5'
Flavone	-	-	-	-	-	-	-	-
Flavonol	+	-	-	-	-	-	-	-
Chrysin	-	+	+	-	-	-	-	-
Galangin	+	+	+	-.	.	.		

SUMM [0071] In nature, **flavones** are usually in glycosylated form.

SUMM [0072] According to the invention, the **flavonoids** are preferably chosen from the group of substances of the generic structural formula ##STR2##

SUMM [0074] According to the invention, the **flavonoids** can however, also advantageously be chosen from the group of substances of the generic structural formula ##STR3##

SUMM . . . are, independently of one another, advantageously chosen from the group consisting of H, OH, methoxy, ethoxy and 2-hydroxyethoxy, and the **flavone** glycosides have the structure ##STR5##

SUMM [0080] The **flavone** glycosides according to the invention are particularly advantageously chosen from the group given by the following structure: ##STR6##

SUMM [0083] For the purposes of the present invention, it is particularly advantageous to choose the **flavone** glucoside(s) from the group consisting of .alpha.-glucosylrutin, .alpha.-glucosylmyricetin, .alpha.-glucosylisoquercitrin, .alpha.-glucosylisoquercetin and .alpha.-glucosylquercitrin.

SUMM . . . the invention are naringin (aurantin, naringenin-7-rhamno-glucoside), hesperidin (3',5,7-trihydroxy-4'-methoxyflavanone-7-rutinoside, hesperidoside, hesperetin-7-O-rutinoside), rutin (3,3',4',5,7-pentahydroxyflavone-3-rutinoside, quercetin-3-rutinoside, sophorin, birutan, rutabion, taurutin, phytomelin, melin), troxerutin (3,5-dihydroxy-3',4',7-tris(2-hydroxyethoxy)**flavone** -3-(6-O-(6-deoxy-.alpha.-L-mannopyranosyl)-.beta.-D-glucopyranoside)), monoxerutin (3,3',4',5-tetrahydroxy-7-(2-hydroxyethoxy)**flavone** -3-(6-O-(6-deoxy-.alpha.-L-mannopyranosyl)-.beta.-D-glucopyranoside)), dihydrorobinetin (3,3',4',5',7-pentahydroxyflavanone), taxifolin (3,3',4',5,7-pentahydroxyflavanone), eriodictyol-7-glucoside (3',4',5,7-tetrahydroxyflavanone-7 glucoside), flavanomarein (3',4',7,8-tetrahydroxyflavanone-7 glucoside) and isoquercetin (3,3',4',5,7-pentahydroxyflavanone-3-(.beta.-D-glucopyranoside). It is also advantageous to choose the. . .

SUMM [0092] Preferred derivatives are creatine phosphate and creatine sulfate, creatine acetate, creatine **ascorbate** and the derivatives esterified at the carboxyl group with mono- or polyfunctional alcohols.

SUMM . . . provide cosmetic and dermatological preparations whose main purpose is not protection against sunlight, but which nevertheless have a content of **UV protection** substances. Thus, for example, UV-A and/or UV-B filter substances are usually incorporated into day creams or make-up products. **UV protection** substances, like antioxidants, and, if desired, preservatives, also constitute effective protection of the preparations themselves against spoilage. Also favorable are. . .

L10 ANSWER 13 OF 31 USPATFULL

AN 2002:314405 USPATFULL

TI Topical composition comprising an aldehyde or ketone-based cosmetic bonding agent

IN Bekele, Haimanot, Cincinnati, OH, UNITED STATES

PA The Procter & Gamble Company (U.S. corporation)

PI US 2002176878 A1 20021128
AI US 2002-92124 A1 20020306 (10)
PRAI US 2001-273997P 20010307 (60)
DT Utility
FS APPLICATION
LREP THE PROCTER & GAMBLE COMPANY, INTELLECTUAL PROPERTY DIVISION, WINTON HILL TECHNICAL CENTER - BOX 161, 6110 CENTER HILL AVENUE, CINCINNATI, OH, 45224
CLMN Number of Claims: 18
ECL Exemplary Claim: 1
DRWN No Drawings
LN.CNT 1722
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention relates to cosmetic compositions that comprise: a) a safe and effective amount of a bonding agent selected from the group consisting of aldehydes and ketones having the structure ##STR1##

wherein X represents a cosmetic benefit agent that may or may not be attached to a chemical linker and R represents hydrogen, straight or branched alkyls, substituted or unsubstituted aryls, and combinations thereof; and b) a cosmetically acceptable carrier for the bonding agent wherein the composition is administered topically to mammalian proteinaceous substrates and wherein the bonding agent reacts with a protein contained in the substrate such that the bonding agent, and thus the cosmetic benefit agent, is covalently attached to the substrate. The invention further relates to methods of using the compositions described above as well as various products that include the claimed compositions.

TI Topical composition comprising an aldehyde or ketone-based cosmetic bonding agent

DETD . . . acid, retinol, retinoids, retinyl palmitate, retinyl proprionate, etc.), Vitamin B (e.g., niacin, niacinamide, riboflavin, pantothenic acid, etc.), Vitamin C (e.g., **ascorbic** acid, etc.), Vitamin D (e.g., ergosterol, ergocalciferol, cholecalciferol, etc.), Vitamin E (e.g., tocopherol acetate, etc.), and Vitamin K (e.g., phytonadione,. . .

DETD . . . 2,4,4'-trichloro-2'-hydroxy diphenyl ether, 3,4,4'-trichlorobanilide, azelaic acid and its derivatives, phenoxyethanol, phenoxypropanol, phenoxyisopropanol, ethyl acetate, clindamycin and meclocycline; sebostats such as **flavonoids**; and bile salts such as scymnol sulfate and its derivatives, deoxycholate, and cholate.

DETD [0075] **Flavonoids**

DETD [0076] The cosmetic benefit agents of the present invention may also be a **flavonoid** compound. **Flavonoids** are broadly disclosed in U.S. Pat. Nos. 5,686,082 and 5,686,367. **Flavonoids** suitable for use in the present invention are flavanones selected from the group consisting of unsubstituted flavanones, mono-substituted flavanones, and. . . mixtures thereof; chalcones selected from the group consisting of unsubstituted chalcones, mono-substituted chalcones, di-substituted chalcones, tri-substituted chalcones, and mixtures thereof; **flavones** selected from the group consisting of unsubstituted **flavones**, mono-substituted **flavones**, di-substituted **flavones**, and mixtures thereof; one or more isoflavones; coumarins selected from the group consisting of unsubstituted coumarins, mono-substituted coumarins, di-substituted coumarins,. . . one or more chromanols; isomers (e.g., cis/trans isomers) thereof; and mixtures thereof. By the term "substituted" as used herein means **flavonoids** wherein one or more hydrogen atom of the **flavonoid** has been independently replaced with hydroxyl, C1-C8 alkyl, C1-C4 alkoxyl, O-glycoside, and the like or a mixture of these substituents.

DETD [0077] Examples of suitable **flavonoids** include, but are not

limited to, unsubstituted flavanone, mono-hydroxy flavanones (e.g., 2'-hydroxy flavanone, 6-hydroxy flavanone, 7-hydroxy flavanone, etc.), mono-alkoxy flavanones. . . 2', 5'-dihydroxy chalcone, etc.), and tri-hydroxy chalcones (e.g., 2', 3', 4'-trihydroxy chalcone, 4,2', 4'-trihydroxy chalcone, 2,2', 4'-trihydroxy chalcone, etc.), unsubstituted **flavone**, 7,2'-dihydroxy **flavone**, 3', 4'-dihydroxy naphthoflavone, 4'-hydroxy **flavone**, 5,6-benzoflavone, and 7,8-benzoflavone, unsubstituted isoflavone, daidzein (7,4'-dihydroxy isoflavone), 5,7-dihydroxy-4'-methoxy isoflavone, soy isoflavones (a mixture extracted from soy), unsubstituted coumarin, 4-hydroxy. . .

DETD . . . also further be derivatized (e.g., a glycoside, an ester or an ether derivative prepared following extraction from a natural source). **Flavonoid** compounds useful herein are commercially available from a number of sources, e.g., Indofine Chemical Company, Inc. (Somerville, N.J.), Steraloids, Inc.. . .

DETD [0080] Mixtures of the above **flavonoid** compounds may also be used.

DETD [0081] The herein described **flavonoid** compounds are preferably present in the instant invention at concentrations of from about 0.01% to about 20%, more preferably from. . .

DETD . . . of a skin lightening agent. Suitable skin lightening agents include those known in the art, including kojic acid, arbutin, deoxyarbutin, **ascorbic** acid and derivatives thereof, e.g., magnesium **ascorbyl** phosphate or sodium **ascorbyl** phosphate or other salts of **ascorbyl** phosphate.

DETD . . . pyrrolidone), humectants, opacifying agents, pH adjusters, propellants, reducing agents, sequestrants, skin bleaching agents (or lightening agents) (e.g., hydroquinone, kojic acid, **ascorbic** acid, magnesium **ascorbyl** phosphate, **ascorbyl** glucosamine), skin soothing and/or healing agents (e.g., panthenol and derivatives (e.g., ethyl panthenol), aloe vera, pantothenic acid and its derivatives,. . .

DETD . . . 6) methods of providing antiperspirant efficacy to skin; 7) methods of preventing, retarding, and/or treating wrinkles; 8) methods of providing **UV protection** to skin; 9) methods of preventing, retarding, and/or treating cellulite; 10) methods of preventing, retarding, and/or controlling the appearance of. . .

DETD Antioxidant-modified bonding agent--modified **ascorbate**

DETD . . . 0.544

Part A - Neutralization Premix

(A)	USP Water	3.013
(A)	Sodium Hydroxide	0.0125
Part B - Niacinamide Premix		
(B)	USP Water	5.000
(B)	Panthenol	0.500
(B)	Modified **Ascorbate** (from Example 8)	2.000
(B)	FD&C Yellow No. 5	0.00115
(B)	FD&C Red No. 40	0.00050
(C)	Sefa Cottonate	0.670
(C)	Isopropyl Isostearate	1.330

(C). . .

DETD . . . an appropriate container prepare Part D (Particulate Premix). Mix by mixer until homogenous. In an appropriate container, prepare the modified **ascorbate** premix. Add Part B ingredients into container, except FD&C Yellow/Red. Heat to no higher than 40.degree. C. while mixing until modified **ascorbate** is dissolved. Add FD&C Yellow/Red. Mix until dissolved. Prepare the Oil Phase. Add part C ingredients to oil phase except. . . 60.degree. C. and add sepigel. Switch to U-blade once formula looks smooth. Cool batch to 50.degree.

C., then add modified **ascorbate** premix, Benzyl alcohol and Q2-1402. Cool batch to 40.degree. C. with periodic spatula mixing to insure homogeneity. When temperature reaches. . .

DETD [0192] In a suitable vessel, neat, chemically synthesized modified **ascorbate** is dissolved using an appropriate solvent. The modified asdcorbate is then recrystallized by sublimation method. Next, the recrystallized modified **ascorbate** is milled to the appropriate particle size.

DETD . . . form a solution of these materials. Next, the aluminum chlorohydroxide is added with gentle agitation, followed by the recrystallized modified **ascorbate** and remaining ingredients. The solution is mixed until a homogenous suspension is formed. The suspension is cooled to a temperature. . .

CLM What is claimed is:

17. A method of providing **UV protection** to skin wherein said method comprises topically applying the composition of claim 1 to skin wherein X is a sunscreen.

. . .

L10 ANSWER 14 OF 31 USPATFULL

AN 2002:314358 USPATFULL

TI Topical composition comprising a functional aromatic derivative cosmetic bonding agent

IN Bekele, Haimanot, Cincinnati, OH, UNITED STATES

PI US 2002176829 A1 20021128
US 6488947 B2 20021203

AI US 2002-91731 A1 20020306 (10)

PRAI US 2001-274165P 20010307 (60)

DT Utility

FS APPLICATION

LREP THE PROCTER & GAMBLE COMPANY, INTELLECTUAL PROPERTY DIVISION, WINTON HILL TECHNICAL CENTER - BOX 161, 6110 CENTER HILL AVENUE, CINCINNATI, OH, 45224

CLMN Number of Claims: 17

ECL Exemplary Claim: 1

DRWN No Drawings

LN.CNT 1767

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention relates to cosmetic compositions that comprise: a) a safe and effective amount of a functional aromatic derivative bonding agent having a structure selected from the group consisting of ##STR1##

wherein

X is one or more cosmetic benefit agents that may or may not be attached to a chemical linker;

Y, Z, and W are selected from the group consisting of H, NO.sub.2, CN, CF.sub.3, SO.sub.2R; COR, and

V is selected from the group consisting of F, I, Br, Cl, NO.sub.2, SOPh, N.sub.3, Oar, OSO.sub.2R, OR, X; SR, and NH.sub.2;

V" and Y" are selected from the group consisting of C, N, and combinations thereof;

Z" and W" are selected from the group consisting of F, I, Br, Cl, H, SR, X, or combinations thereof; wherein R is an alkyl or phenyl; and

b) a cosmetically acceptable carrier for the bonding agent wherein the composition is administered topically to mammalian proteinaceous

substrates and wherein the bonding agent reacts with a protein contained in the substrate such that the bonding agent, and thus the cosmetic benefit agent, is covalently attached to the substrate. The invention further relates to methods of using the compositions described above as well as various products that include the claimed compositions.

TI Topical composition comprising a functional aromatic derivative cosmetic bonding agent

SUMM . . . acid, retinol, retinoids, retinyl palmitate, retinyl proprionate, etc.), Vitamin B (e.g., niacin, niacinamide, riboflavin, pantothenic acid, etc.), Vitamin C (e.g., **ascorbic** acid, etc.), Vitamin D (e.g., ergosterol, ergocalciferol, cholecalciferol, etc.), Vitamin E (e.g., tocopherol acetate, etc.), and Vitamin K (e.g., phytonadione,. . .

SUMM . . . 2,4,4'-trichloro-2'-hydroxy diphenyl ether, 3,4,4'-trichlorobanilide, azelaic acid and its derivatives, phenoxyethanol, phenoxypropanol, phenoxyisopropanol, ethyl acetate, clindamycin and meclocycline; sebostats such as **flavonoids**; and bile salts such as scymnol sulfate and its derivatives, deoxycholate, and cholate.

SUMM [0084] **Flavonoids**

SUMM [0085] The cosmetic benefit agents of the present invention may also be a **flavonoid** compound. **Flavonoids** are broadly disclosed in U.S. Pat. Nos. 5,686,082 and 5,686,367. **Flavonoids** suitable for use in the present invention are flavanones selected from the group consisting of unsubstituted flavanones, mono-substituted flavanones, and. . . mixtures thereof; chalcones selected from the group consisting of unsubstituted chalcones, mono-substituted chalcones, di-substituted chalcones, tri-substituted chalcones, and mixtures thereof; **flavones** selected from the group consisting of unsubstituted **flavones**, mono-substituted **flavones**, di-substituted **flavones**, and mixtures thereof; one or more isoflavones; coumarins selected from the group consisting of unsubstituted coumarins, mono-substituted coumarins, di-substituted coumarins,. . . one or more chromanols; isomers (e.g., cis/trans isomers) thereof; and mixtures thereof. By the term "substituted" as used herein means **flavonoids** wherein one or more hydrogen atom of the **flavonoid** has been independently replaced with hydroxyl, C1-C8 alkyl, C1-C4 alkoxyl, O-glycoside, and the like or a mixture of these substituents.

SUMM [0086] Examples of suitable **flavonoids** include, but are not limited to, unsubstituted flavanone, mono-hydroxy flavanones (e.g., 2'-hydroxy flavanone, 6-hydroxy flavanone, 7-hydroxy flavanone, etc.), mono-alkoxy flavanones. . . chalcone, 2,2'-dihydroxy chalcone, 2',3-dihydroxy chalcone, 2',5'-dihydroxy chalcone, etc.), and tri-hydroxy chalcones (e.g., 2',3',4'-trihydroxy chalcone, 4,2',4'-trihydroxy chalcone, 2,2',4'-trihydroxy chalcone, etc.), unsubstituted **flavone**, 7,2'-dihydroxy **flavone**, 3',4'-dihydroxy naphthoflavone, 4'-hydroxy **flavone**, 5,6-benzoflavone, and 7,8-benzoflavone, unsubstituted isoflavone, daidzein (7,4'-dihydroxy isoflavone), 5,7-dihydroxy-4'-methoxy isoflavone, soy isoflavones (a mixture extracted from soy), unsubstituted coumarin, 4-hydroxy. . .

SUMM . . . also further be derivatized (e.g., a glycoside, an ester or an ether derivative prepared following extraction from a natural source). **Flavonoid** compounds useful herein are commercially available from a number of sources, e.g., Indofine Chemical Company, Inc. (Somerville, N.J.), Steraloids, Inc.. . .

SUMM [0089] Mixtures of the above **flavonoid** compounds may also be used.

SUMM [0090] The herein described **flavonoid** compounds are preferably present in the instant invention at concentrations of from about 0.01% to about 20%, more preferably from. . .

SUMM . . . of a skin lightening agent. Suitable skin lightening agents include those known in the art, including kojic acid, arbutin, deoxyarbutin, **ascorbic** acid and derivatives thereof, e.g., magnesium **ascorbyl** phosphate or sodium **ascorbyl** phosphate or other salts of **ascorbyl** phosphate.

SUMM . . . pyrrolidone), humectants, opacifying agents, pH adjusters, propellants, reducing agents, sequestrants, skin bleaching agents (or lightening agents) (e.g., hydroquinone, kojic acid, **ascorbic** acid, magnesium **ascorbyl** phosphate, **ascorbyl** glucosamine), skin soothing and/or healing agents (e.g., panthenol and derivatives (e.g., ethyl panthenol), aloe vera, pantothenic acid and its derivatives,. . .

SUMM . . . 6) methods of providing antiperspirant efficacy to skin; 7) methods of preventing, retarding, and/or treating wrinkles; 8) methods of providing **UV protection** to skin; 9) methods of preventing, retarding, and/or treating cellulite; 10) methods of preventing, retarding, and/or controlling the appearance of. . .

DETD [0178] Antioxidant-modified bonding agent--Modified **ascorbate** ##STR11##

DETD [0180] Antioxidant-modified bonding agent--Modified **ascorbate** ##STR13##

DETD . . . 0.544

Part A - Neutralization

Premix

(A)	USP Water	3.013
(A)	Sodium Hydroxide	0.0125

Part B - Niacinamide Premix

(B)	USP Water	5.000
(B)	Panthenol	0.500
(B)	Modified **Ascorbate** (from Example 1 or 3, respectively)	2.000
(B)	FD&C Yellow No. 5	0.00115
(B)	FD&C Red No. 40	0.00050
(C)	Sefa Cottonate	0.670

(C). . .

DETD . . . an appropriate container prepare Part D (Particulate Premix). Mix by mixer until homogenous. In an appropriate container, prepare the modified **ascorbate** premix. Add Part B ingredients into container, except FD&C Yellow/Red. Heat to no higher than 40.degree. C. while mixing until modified **ascorbate** is dissolved. Add FD&C Yellow/Red. Mix until dissolved. Prepare the Oil Phase. Add part C ingredients to oil phase except. . . 60.degree. C. and add sepigel. Switch to U-blade once formula looks smooth. Cool batch to 50.degree. C., then add modified **ascorbate** premix, Benzyl alcohol and Q2-1402. Cool batch to 40.degree. C. with periodic spatula mixing to insure homogeneity. When temperature reaches. . .

DETD [0211] In a suitable vessel, neat, chemically synthesized modified **ascorbate** is dissolved using an appropriate solvent. The modified asdcorbate is then recrystallized by sublimation method. Next, the recrystallized modified **ascorbate** is milled to the appropriate particle size.

DETD . . . form a solution of these materials. Next, the aluminum chlorohydroxide is added with gentle agitation, followed by the recrystallized modified **ascorbate** and remaining ingredients. The solution is mixed until a homogenous suspension is formed. The suspension is cooled to a temperature. . .

CLM What is claimed is:

16. A method of providing **UV protection** to skin wherein said method comprises topically applying the composition of claim 1 to skin wherein X is a sunscreen.

. . .

L10 ANSWER 15 OF 31 USPATFULL
AN 2002:307583 USPATFULL
TI Topical composition comprising a functionally acylating cosmetic bonding agent
IN Bekele, Haimanot, Cincinnati, OH, UNITED STATES
PI US 2002172702 A1 20021121
AI US 2002-92329 A1 20020306 (10)
PRAI US 2001-273983P 20010307 (60)
DT Utility
FS APPLICATION
LREP THE PROCTER & GAMBLE COMPANY, INTELLECTUAL PROPERTY DIVISION, WINTON HILL TECHNICAL CENTER - BOX 161, 6110 CENTER HILL AVENUE, CINCINNATI, OH, 45224
CLMN Number of Claims: 17
ECL Exemplary Claim: 1
DRWN No Drawings
LN.CNT 1705
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The present invention relates to cosmetic compositions that comprise: a) a safe and effective amount of an acylating bonding agent having the structure ##STR1##

wherein X represents a cosmetic benefit agent that may or may not be attached to a chemical linker and R represents N.sub.3, Cl, Br or OM wherein M is an activated ester; and b) a cosmetically acceptable carrier for the bonding agent wherein the composition is administered topically to mammalian proteinaceous substrates and wherein the bonding agent reacts with a protein contained in the substrate such that the bonding agent, and thus the cosmetic benefit agent, is covalently attached to the substrate. The invention further relates to methods of using the compositions described above as well as various products that include the claimed compositions.
TI Topical composition comprising a functionally acylating cosmetic bonding agent
SUMM . . . acid, retinol, retinoids, retinyl palmitate, retinyl proprionate, etc.), Vitamin B (e.g., niacin, niacinamide, riboflavin, pantothenic acid, etc.), Vitamin C (e.g., **ascorbic** acid, etc.), Vitamin D (e.g., ergosterol, ergocalciferol, cholecalciferol, etc.), Vitamin E (e.g., tocopherol acetate, etc.), and Vitamin K (e.g., phytonadione,. . .
SUMM . . . 2,4,4'-trichloro-2'-hydroxy diphenyl ether, 3,4,4'-trichlorobanilide, azelaic acid and its derivatives, phenoxyethanol, phenoxypropanol, phenoxyisopropanol, ethyl acetate, clindamycin and meclocycline; sebostats such as **flavonoids**; and bile salts such as scymnol sulfate and its derivatives, deoxycholate, and cholate.
SUMM [0076] **Flavonoids**
SUMM [0077] The cosmetic benefit agents of the present invention may also be a **flavonoid** compound. **Flavonoids** are broadly disclosed in U.S. Pat. Nos. 5,686,082 and 5,686,367. **Flavonoids** suitable for use in the present invention are flavanones selected from the group consisting of unsubstituted flavanones, mono-substituted flavanones, and. . . mixtures thereof; chalcones selected from the group consisting of unsubstituted chalcones, mono-substituted chalcones, di-substituted chalcones, tri-substituted chalcones, and mixtures thereof; **flavones** selected from the group consisting of unsubstituted **flavones**, mono-substituted **flavones**, di-substituted **flavones**, and mixtures thereof; one or more isoflavones; coumarins selected from the group consisting of unsubstituted coumarins, mono-substituted coumarins, di-substituted coumarins,. . . one or more chromanols; isomers (e.g., cis/trans

isomers) thereof; and mixtures thereof. By the term "substituted" as used herein means **flavonoids** wherein one or more hydrogen atom of the **flavonoid** has been independently replaced with hydroxyl, C1-C8 alkyl, C1-C4 alkoxyl, O-glycoside, and the like or a mixture of these substituents.

SUMM [0078] Examples of suitable **flavonoids** include, but are not limited to, unsubstituted flavanone, mono-hydroxy flavanones (e.g., 2'-hydroxy flavanone, 6-hydroxy flavanone, 7-hydroxy flavanone, etc.), mono-alkoxy flavanones. . . chalcone, 2,2'-dihydroxy chalcone, 2',3-dihydroxy chalcone, 2',5'-dihydroxy chalcone, etc.), and tri-hydroxy chalcones (e.g., 2',3',4'-trihydroxy chalcone, 4,2',4'-trihydroxy chalcone, 2,2',4'-trihydroxy chalcone, etc.), unsubstituted **flavone**, 7,2'-dihydroxy **flavone**, 3',4'-dihydroxy naphthoflavone, 4'-hydroxy **flavone**, 5,6-benzoflavone, and 7,8-benzoflavone, unsubstituted isoflavone, daidzein (7,4'-dihydroxy isoflavone), 5,7-dihydroxy-4'-methoxy isoflavone, soy isoflavones (a mixture extracted from soy), unsubstituted coumarin, 4-hydroxy. . .

SUMM . . . also further be derivatized (e.g., a glycoside, an ester or an ether derivative prepared following extraction from a natural source). **Flavonoid** compounds useful herein are commercially available from a number of sources, e.g., Indofine Chemical Company, Inc. (Somerville, N.J.), Steraloids, Inc.. . .

SUMM [0081] Mixtures of the above **flavonoid** compounds may also be used.

SUMM [0082] The herein described **flavonoid** compounds are preferably present in the instant invention at concentrations of from about 0.01% to about 20%, more preferably from. . .

SUMM . . . of a skin lightening agent. Suitable skin lightening agents include those known in the art, including kojic acid, arbutin, deoxyarbutin, **ascorbic** acid and derivatives thereof, e.g., magnesium **ascorbyl** phosphate or sodium **ascorbyl** phosphate or other salts of **ascorbyl** phosphate.

SUMM . . . pyrrolidone), humectants, opacifying agents, pH adjusters, propellants, reducing agents, sequestrants, skin bleaching agents (or lightening agents) (e.g., hydroquinone, kojic acid, **ascorbic** acid, magnesium **ascorbyl** phosphate, **ascorbyl** glucosamine), skin soothing and/or healing agents (e.g., panthenol and derivatives (e.g., ethyl panthenol), aloe vera, pantothenic acid and its derivatives,. . .

SUMM . . . 6) methods of providing antiperspirant efficacy to skin; 7) methods of preventing, retarding, and/or treating wrinkles; 8) methods of providing **UV protection** to skin; 9) methods of preventing, retarding, and/or treating cellulite; 10) methods of preventing, retarding, and/or controlling the appearance of. . .

DETD [0170] Antioxidant-modified bonding agent--Modified **ascorbate** wherein R is N.sub.3, Cl, Br or OM wherein M is an activated ester ##STR11##

DETD . . . 0.544

Part A - Neutralization Premix		
(A)	USP Water	3.013
(A)	Sodium Hydroxide	0.0125
Part B - Niacinamide Premix		
(B)	USP Water	5.000
(B)	Panthenol	0.500
(B)	Modified **Ascorbate** (from Example 8)	2.000
(B)	FD&C Yellow No. 5	0.00115
(B)	FD&C Red No. 40	0.00050
(C)	Sefa Cottonate	0.670
(C)	Isopropyl Isostearate	1.330

(C). . .
DETD . . . an appropriate container prepare Part D (Particulate Premix). Mix by mixer until homogenous. In an appropriate container, prepare the modified **ascorbate** premix. Add Part B ingredients into container, except FD&C Yellow/Red. Heat to no higher than 40.degree. C. while mixing until modified **ascorbate** is dissolved. Add FD&C Yellow/Red. Mix until dissolved. Prepare the Oil Phase. Add part C ingredients to oil phase except. . . 60.degree. C. and add sepigel. Switch to U-blade once formula looks smooth. Cool batch to 50.degree. C., then add modified **ascorbate** premix, Benzyl alcohol and Q2-1402. Cool batch to 40.degree. C. with periodic spatula mixing to insure homogeneity. When temperature reaches. . .

DETD [0192] In a suitable vessel, neat, chemically synthesized modified **ascorbate** is dissolved using an appropriate solvent. The modified asdcorbate is then recrystallized by sublimation method. Next, the recrystallized modified **ascorbate** is milled to the appropriate particle size.

DETD . . . form a solution of these materials. Next, the aluminum chlorohydroxide is added with gentle agitation, followed by the recrystallized modified **ascorbate** and remaining ingredients. The solution is mixed until a homogenous suspension is formed. The suspension is cooled to a temperature. . .

CLM What is claimed is:
16. A method of providing **UV protection** to skin wherein said method comprises topically applying the composition of claim 1 to skin wherein X is a sunscreen.
. . .

L10 ANSWER 16 OF 31 USPATFULL
AN 2002:307582 USPATFULL
TI Topical composition comprising a functionalized acid anhydride-based cosmetic bonding agent
IN Bekele, Haimanot, Cincinnati, OH, UNITED STATES
PI US 2002172701 A1 20021121
US 6495150 B2 20021217
AI US 2002-91809 A1 20020306 (10)
PRAI US 2001-273986P 20010307 (60)
DT Utility
FS APPLICATION
LREP THE PROCTER & GAMBLE COMPANY, INTELLECTUAL PROPERTY DIVISION, WINTON HILL TECHNICAL CENTER - BOX 161, 6110 CENTER HILL AVENUE, CINCINNATI, OH, 45224
CLMN Number of Claims: 17
ECL Exemplary Claim: 1
DRWN No Drawings
LN.CNT 1690
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The present invention relates to cosmetic compositions that comprise: a) a safe and effective amount of a functionalized acid anhydride-based bonding agent having ##STR1##

wherein X represents a cosmetic benefit agent that may or may not be attached to a chemical linker; and b) a cosmetically acceptable carrier for the bonding agent wherein the composition is administered topically to mammalian proteinaceous substrates and wherein the bonding agent reacts with a protein contained in the substrate such that the bonding agent, and thus the cosmetic benefit agent, is covalently attached to the substrate. The invention further relates to methods of using the compositions described above as well as various products that include the claimed compositions.

TI Topical composition comprising a functionalized acid anhydride-based cosmetic bonding agent

SUMM . . . acid, retinol, retinoids, retinyl palmitate, retinyl proprionate, etc.), Vitamin B (e.g., niacin, niacinamide, riboflavin, pantothenic acid, etc.), Vitamin C (e.g., **ascorbic** acid, etc.), Vitamin D (e.g., ergosterol, ergocalciferol, cholecalciferol, etc.), Vitamin E (e.g., tocopherol acetate, etc.), and Vitamin K (e.g., phytonadione,. . .

SUMM . . . 2,4,4'-trichloro-2'-hydroxy diphenyl ether, 3,4,4'-trichlorobanilide, azelaic acid and its derivatives, phenoxyethanol, phenoxypropanol, phenoxyisopropanol, ethyl acetate, clindamycin and meclocycline; sebostats such as **flavonoids**; and bile salts such as scymnol sulfate and its derivatives, deoxycholate, and cholate.

SUMM [0076] **Flavonoids**

SUMM [0077] The cosmetic benefit agents of the present invention may also be a **flavonoid** compound. **Flavonoids** are broadly disclosed in U.S. Pat. Nos. 5,686,082 and 5,686,367. **Flavonoids** suitable for use in the present invention are flavanones selected from the group consisting of unsubstituted flavanones, mono-substituted flavanones, and. . . mixtures thereof; chalcones selected from the group consisting of unsubstituted chalcones, mono-substituted chalcones, di-substituted chalcones, tri-substituted chalcones, and mixtures thereof; **flavones** selected from the group consisting of unsubstituted **flavones**, mono-substituted **flavones**, di-substituted **flavones**, and mixtures thereof; one or more isoflavones; coumarins selected from the group consisting of unsubstituted coumarins, mono-substituted coumarins, di-substituted coumarins,. . . one or more chromanols; isomers (e.g., cis/trans isomers) thereof; and mixtures thereof. By the term "substituted" as used herein means **flavonoids** wherein one or more hydrogen atom of the **flavonoid** has been independently replaced with hydroxyl, C1-C8 alkyl, C1-C4 alkoxyl, O-glycoside, and the like or a mixture of these substituents.

SUMM [0078] Examples of suitable **flavonoids** include, but are not limited to, unsubstituted flavanone, mono-hydroxy flavanones (e.g., 2'-hydroxy flavanone, 6-hydroxy flavanone, 7-hydroxy flavanone, etc.), mono-alkoxy flavanones. . . chalcone, 2,2'-dihydroxy chalcone, 2',3-dihydroxy chalcone, 2',5'-dihydroxy chalcone, etc.), and tri-hydroxy chalcones (e.g., 2',3',4'-trihydroxy chalcone, 4,2',4'-trihydroxy chalcone, 2,2',4'-trihydroxy chalcone, etc.), unsubstituted **flavone**, 7,2'-dihydroxy **flavone**, 3',4'-dihydroxy naphthoflavone, 4'-hydroxy **flavone**, 5,6-benzoflavone, and 7,8-benzoflavone, unsubstituted isoflavone, daidzein (7,4'-dihydroxy isoflavone), 5,7-dihydroxy-4'-methoxy isoflavone, soy isoflavones (a mixture extracted from soy), unsubstituted coumarin, 4-hydroxy. . .

SUMM . . . also further be derivatized (e.g., a glycoside, an ester or an ether derivative prepared following extraction from a natural source). **Flavonoid** compounds useful herein are commercially available from a number of sources, e.g., Indofine Chemical Company, Inc. (Somerville, N.J.), Steraloids, Inc.. . .

SUMM [0081] Mixtures of the above **flavonoid** compounds may also be used.

SUMM [0082] The herein described **flavonoid** compounds are preferably present in the instant invention at concentrations of from about 0.01% to about 20%, more preferably from. . .

SUMM . . . of a skin lightening agent. Suitable skin lightening agents include those known in the art, including kojic acid, arbutin, deoxyarbutin, **ascorbic** acid and derivatives thereof, e.g., magnesium **ascorbyl** phosphate or sodium **ascorbyl** phosphate or other salts of **ascorbyl** phosphate.

SUMM . . . pyrrolidone), humectants, opacifying agents, pH adjusters, propellants, reducing agents, sequestrants, skin bleaching agents (or

lightening agents) (e.g., hydroquinone, kojic acid, **ascorbic** acid, magnesium **ascorbyl** phosphate, **ascorbyl** glucosamine), skin soothing and/or healing agents (e.g., panthenol and derivatives (e.g., ethyl panthenol), aloe vera, pantothenic acid and its derivatives,. . .

SUMM . . . 6) methods of providing antiperspirant efficacy to skin; 7) methods of preventing, retarding, and/or treating wrinkles; 8) methods of providing **UV protection** to skin; 9) methods of preventing, retarding, and/or treating cellulite; 10) methods of preventing, retarding, and/or controlling the appearance of. . .

DETD [0166] Antioxidant-Modified Bonding Agent--Modified **Ascorbate** ##STR10##

DETD . . . 0.544

Part A - Neutralization Premix

(A)	USP Water	3.013
(A)	Sodium Hydroxide	0.0125
Part B - Niacinamide Premix		
(B)	USP Water	5.000
(B)	Panthenol	0.500
(B)	Modified **Ascorbate** (from Example 8)	2.000
(B)	FD&C Yellow No. 5	0.00115
(B)	FD&C Red No. 40	0.00050
(C)	Sefa Cottonate	0.670
(C)	Isopropyl Isostearate	1.330

(C). . .

DETD . . . an appropriate container prepare Part D (Particulate Premix). Mix by mixer until homogenous. In an appropriate container, prepare the modified **ascorbate** premix. Add Part B ingredients into container, except FD&C Yellow/Red. Heat to no higher than 40.degree. C. while mixing until modified **ascorbate** is dissolved. Add FD&C Yellow/Red. Mix until dissolved. Prepare the Oil Phase. Add part C ingredients to oil phase except. . . 60.degree. C. and add sepigel. Switch to U-blade once formula looks smooth. Cool batch to 50.degree. C., then add modified **ascorbate** premix, Benzyl alcohol and Q2-1402. Cool batch to 40.degree. C. with periodic spatula mixing to insure homogeneity. When temperature reaches. . .

DETD [0188] In a suitable vessel, neat, chemically synthesized modified **ascorbate** is dissolved using an appropriate solvent. The modified asdcorbate is then recrystallized by sublimation method. Next, the recrystallized modified **ascorbate** is milled to the appropriate particle size.

DETD . . . form a solution of these materials. Next, the aluminum chlorohydroxide is added with gentle agitation, followed by the recrystallized modified **ascorbate** and remaining ingredients. The solution is mixed until a homogenous suspension is formed. The suspension is cooled to a temperature. . .

CLM What is claimed is:

16. A method of providing **UV protection** to skin wherein said method comprises topically applying the composition of claim 1 to skin wherein X is a sunscreen.

. . .

L10 ANSWER 17 OF 31 USPATFULL

AN 2002:307581 USPATFULL

TI Topical composition comprising a cyclic imidocarbonate-based cosmetic bonding agent

IN Bekele, Haimanot, Cincinnati, OH, UNITED STATES

PA The Procter & Gamble Company (U.S. corporation)

PI US 2002172700 A1 20021121

US 6485732 B2 20021126

AI US 2002-91748 A1 20020306 (10)
PRAI US 2001-274034P 20010307 (60)
DT Utility
FS APPLICATION
LREP THE PROCTER & GAMBLE COMPANY, INTELLECTUAL PROPERTY DIVISION, WINTON HILL TECHNICAL CENTER - BOX 161, 6110 CENTER HILL AVENUE, CINCINNATI, OH, 45224
CLMN Number of Claims: 18
ECL Exemplary Claim: 1
DRWN No Drawings
LN.CNT 1695
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention relates to cosmetic compositions that comprise: a) a safe and effective amount of a cyclic imidocarbonate bonding agent having the structure ##STR1##

wherein X represents a cosmetic benefit agent that may or may not be attached to a chemical linker and R represents NH or O; and b) a cosmetically acceptable carrier for the bonding agent wherein the composition is administered topically to mammalian proteinaceous substrates and wherein the bonding agent reacts with a protein contained in the substrate such that the bonding agent, and thus the cosmetic benefit agent, is covalently attached to the substrate. The invention further relates to methods of using the compositions described above as well as various products that include the claimed compositions.

TI Topical composition comprising a cyclic imidocarbonate-based cosmetic bonding agent

SUMM . . . acid, retinol, retinoids, retinyl palmitate, retinyl proprionate, etc.), Vitamin B (e.g., niacin, niacinamide, riboflavin, pantothenic acid, etc.), Vitamin C (e.g., **ascorbic** acid, etc.), Vitamin D (e.g., ergosterol, ergocalciferol, cholecalciferol, etc.), Vitamin E (e.g., tocopherol acetate, etc.), and Vitamin K (e.g., phytonadione,. . .

SUMM . . . 2,4,4'-trichloro-2'-hydroxy diphenyl ether, 3,4,4'-trichlorobanilide, azelaic acid and its derivatives, phenoxyethanol, phenoxypropanol, phenoxyisopropanol, ethyl acetate, clindamycin and meclocycline; sebostats such as **flavonoids**; and bile salts such as scymnol sulfate and its derivatives, deoxycholate, and cholate.

SUMM **Flavonoids**

SUMM [0064] The cosmetic benefit agents of the present invention may also be a **flavonoid** compound. **Flavonoids** are broadly disclosed in U.S. Pat. Nos. 5,686,082 and 5,686,367. **Flavonoids** suitable for use in the present invention are flavanones selected from the group consisting of unsubstituted flavanones, mono-substituted flavanones, and. . . mixtures thereof; chalcones selected from the group consisting of unsubstituted chalcones, mono-substituted chalcones, di-substituted chalcones, tri-substituted chalcones, and mixtures thereof; **flavones** selected from the group consisting of unsubstituted **flavones**, mono-substituted **flavones**, di-substituted **flavones**, and mixtures thereof; one or more isoflavones; coumarins selected from the group consisting of unsubstituted coumarins, mono-substituted coumarins, di-substituted coumarins,. . . one or more chromanols; isomers (e.g., cis/trans isomers) thereof; and mixtures thereof. By the term "substituted" as used herein means **flavonoids** wherein one or more hydrogen atom of the **flavonoid** has been independently replaced with hydroxyl, C1-C8 alkyl, C1-C4 alkoxyl, O-glycoside, and the like or a mixture of these substituents.

SUMM [0065] Examples of suitable **flavonoids** include, but are not limited to, unsubstituted flavanone, mono-hydroxy flavanones (e.g., 2'-hydroxy flavanone, 6-hydroxy flavanone, 7-hydroxy flavanone, etc.),

mono-alkoxy flavanones. . . chalcone, 2,2'-dihydroxy chalcone, 2',3-dihydroxy chalcone, 2',5'-dihydroxy chalcone, etc.), and tri-hydroxy chalcones (e.g., 2',3',4'-trihydroxy chalcone, 4,2',4'-trihydroxy chalcone, 2,2',4'-trihydroxy chalcone, etc.), unsubstituted **flavone**, 7,2'-dihydroxy **flavone**, 3',4'-dihydroxy naphthoflavone, 4'-hydroxy **flavone**, 5,6-benzoflavone, and 7,8-benzoflavone, unsubstituted isoflavone, daidzein (7,4'-dihydroxy isoflavone), 5,7-dihydroxy-4'-methoxy isoflavone, soy isoflavones (a mixture extracted from soy), unsubstituted coumarin, 4-hydroxy. . .

SUMM . . . also further be derivatized (e.g., a glycoside, an ester or an ether derivative prepared following extraction from a natural source). **Flavonoid** compounds useful herein are commercially available from a number of sources, e.g., Indofine Chemical Company, Inc. (Somerville, N.J.), Steraloids, Inc.. . .

SUMM [0068] Mixtures of the above **flavonoid** compounds may also be used.

SUMM [0069] The herein described **flavonoid** compounds are preferably present in the instant invention at concentrations of from about 0.01% to about 20%, more preferably from. . .

SUMM . . . of a skin lightening agent. Suitable skin lightening agents include those known in the art, including kojic acid, arbutin, deoxyarbutin, **ascorbic** acid and derivatives thereof, e.g., magnesium **ascorbyl** phosphate or sodium **ascorbyl** phosphate or other salts of **ascorbyl** phosphate.

SUMM . . . pyrrolidone), humectants, opacifying agents, pH adjusters, propellants, reducing agents, sequestrants, skin bleaching agents (or lightening agents) (e.g., hydroquinone, kojic acid, **ascorbic** acid, magnesium **ascorbyl** phosphate, **ascorbyl** glucosamine), skin soothing and/or healing agents (e.g., panthenol and derivatives (e.g., ethyl panthenol), aloe vera, pantothenic acid and its derivatives,. . .

SUMM . . . 6) methods of providing antiperspirant efficacy to skin; 7) methods of preventing, retarding, and/or treating wrinkles; 8) methods of providing **UV protection** to skin; 9) methods of preventing, retarding, and/or treating cellulite; 10) methods of preventing, retarding, and/or controlling the appearance of. . .

DETD Antioxidant-modified Bonding Agent--Modified **Ascorbate** wherein R is NH, O or S

DETD . . . 0.544

Part A - Neutralization Premix

(A)	USP Water	3.013
(A)	Sodium Hydroxide	0.0125

Part B - Niacinamide Premix

(B)	USP Water	5.000
(B)	Panthenol	0.500
(B)	Modified **Ascorbate** (from Example 8)	2.000
(B)	FD&C Yellow No. 5	0.00115
(B)	FD&C Red No. 40	0.00050
(C)	Sefa Cottonate	0.670
(C)	Isopropyl Isostearate	1.330

(C). . .

DETD . . . an appropriate container prepare Part D (Particulate Premix). Mix by mixer until homogenous. In an appropriate container, prepare the modified **ascorbate** premix. Add Part B ingredients into container, except FD&C Yellow/Red. Heat to no higher than 40.degree. C. while mixing until modified **ascorbate** is dissolved. Add FD&C Yellow/Red. Mix until dissolved. Prepare the Oil Phase. Add part C ingredients to oil phase except. . . 60.degree. C. and add sepigel. Switch to U-blade once formula looks smooth. Cool batch to 50.degree.

C., then add modified **ascorbate** premix, Benzyl alcohol and Q2-1402. Cool batch to 40.degree. C. with periodic spatula mixing to insure homogeneity. When temperature reaches. . .

DETD [0159] In a suitable vessel, neat, chemically synthesized modified **ascorbate** is dissolved using an appropriate solvent. The modified asdcorbate is then recrystallized by sublimation method. Next, the recrystallized modified **ascorbate** is milled to the appropriate particle size.

DETD . . . form a solution of these materials. Next, the aluminum chlorohydroxide is added with gentle agitation, followed by the recrystallized modified **ascorbate** and remaining ingredients. The solution is mixed until a homogenous suspension is formed. The suspension is cooled to a temperature. . .

CLM What is claimed is:
17. A method of providing **UV protection** to skin wherein said method comprises topically applying the composition of claim 1 to skin wherein X is a sunscreen.
. . .

L10 ANSWER 18 OF 31 USPATFULL
AN 2002:307580 USPATFULL
TI Topical composition comprising a 1, 2-heteroatom constituted diene cosmetic bonding agent
IN Bekele, Haimanot, Cincinnati, OH, UNITED STATES
PA The Procter & Gamble Company (U.S. corporation)
PI US 2002172699 A1 20021121
US 6491935 B2 20021210
AI US 2002-91747 A1 20020306 (10)
PRAI US 2001-273856P 20010307 (60)
DT Utility
FS APPLICATION
LREP THE PROCTER & GAMBLE COMPANY, INTELLECTUAL PROPERTY DIVISION, WINTON HILL TECHNICAL CENTER - BOX 161, 6110 CENTER HILL AVENUE, CINCINNATI, OH, 45224
CLMN Number of Claims: 17
ECL Exemplary Claim: 1
DRWN No Drawings
LN.CNT 1688
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The present invention relates to cosmetic compositions that comprise: a) a safe and effective amount of a 1,2-heteroatom constituted diene bonding agent having the structure

X--Y.dbd.C.dbd.R

wherein X represents a cosmetic benefit agent that may or may not be attached to a chemical linker, Y represents N, CH, or CW wherein W is an alkyl and R represents O, S, or Se; and b) a cosmetically acceptable carrier for the bonding agent wherein the composition is administered topically to mammalian proteinaceous substrates and wherein the bonding agent reacts with a protein contained in the substrate such that the bonding agent, and thus the cosmetic benefit agent, is covalently attached to the substrate. The invention further relates to methods of using the compositions described above as well as various products that include the claimed compositions.

TI Topical composition comprising a 1, 2-heteroatom constituted diene cosmetic bonding agent

SUMM . . . acid, retinol, retinoids, retinyl palmitate, retinyl proprionate, etc.), Vitamin B (e.g., niacin, niacinamide, riboflavin, pantothenic acid, etc.), Vitamin C (e.g., **ascorbic** acid, etc.), Vitamin D (e.g., ergosterol, ergocalciferol, cholecalciferol, etc.), Vitamin E (e.g., tocopherol acetate, etc.), and Vitamin K (e.g.,

phytonadione,. . .

SUMM . . . 2,4,4'-trichloro-2'-hydroxy diphenyl ether, 3,4,4'-trichlorobanilide, azelaic acid and its derivatives, phenoxyethanol, phenoxypropanol, phenoxyisopropanol, ethyl acetate, clindamycin and meclocycline; sebostats such as **flavonoids**; and bile salts such as scymnol sulfate and its derivatives, deoxycholate, and cholate.

SUMM **Flavonoids**

SUMM [0065] The cosmetic benefit agents of the present invention may also be a **flavonoid** compound. **Flavonoids** are broadly disclosed in U.S. Pat. Nos. 5,686,082 and 5,686,367. **Flavonoids** suitable for use in the present invention are flavanones selected from the group consisting of unsubstituted flavanones, mono-substituted flavanones, and. . . mixtures thereof; chalcones selected from the group consisting of unsubstituted chalcones, mono-substituted chalcones, di-substituted chalcones, tri-substituted chalcones, and mixtures thereof; **flavones** selected from the group consisting of unsubstituted **flavones**, mono-substituted **flavones**, di-substituted **flavones**, and mixtures thereof; one or more isoflavones; coumarins selected from the group consisting of unsubstituted coumarins, mono-substituted coumarins, di-substituted coumarins,. . . one or more chromanols; isomers (e.g., cis/trans isomers) thereof; and mixtures thereof. By the term "substituted" as used herein means **flavonoids** wherein one or more hydrogen atom of the **flavonoid** has been independently replaced with hydroxyl, C1-C8 alkyl, C1-C4 alkoxyl, O-glycoside, and the like or a mixture of these substituents.

SUMM [0066] Examples of suitable **flavonoids** include, but are not limited to, unsubstituted flavanone, mono-hydroxy flavanones (e.g., 2'-hydroxy flavanone, 6-hydroxy flavanone, 7-hydroxy flavanone, etc.), mono-alkoxy flavanones. . . chalcone, 2,2'-dihydroxy chalcone, 2',3-dihydroxy chalcone, 2',5'-dihydroxy chalcone, etc.), and tri-hydroxy chalcones (e.g., 2',3',4'-trihydroxy chalcone, 4,2',4'-trihydroxy chalcone, 2,2',4'-trihydroxy chalcone, etc.), unsubstituted **flavone**, 7,2'-dihydroxy **flavone**, 3',4'-dihydroxy naphthoflavone, 4'-hydroxy **flavone**, 5,6-benzoflavone, and 7,8-benzoflavone, unsubstituted isoflavone, daidzein (7,4'-dihydroxy isoflavone), 5,7-dihydroxy-4'-methoxy isoflavone, soy isoflavones (a mixture extracted from soy), unsubstituted coumarin, 4-hydroxy. . .

SUMM . . . also further be derivatized (e.g., a glycoside, an ester or an ether derivative prepared following extraction from a natural source). **Flavonoid** compounds useful herein are commercially available from a number of sources, e.g., Indofine Chemical Company, Inc. (Somerville, N.J.), Steraloids, Inc.. . .

SUMM [0069] Mixtures of the above **flavonoid** compounds may also be used.

SUMM [0070] The herein described **flavonoid** compounds are preferably present in the instant invention at concentrations of from about 0.01% to about 20%, more preferably from. . .

SUMM . . . of a skin lightening agent. Suitable skin lightening agents include those known in the art, including kojic acid, arbutin, deoxyarbutin, **ascorbic** acid and derivatives thereof, e.g., magnesium **ascorbyl** phosphate or sodium **ascorbyl** phosphate or other salts of **ascorbyl** phosphate.

SUMM . . . pyrrolidone), humectants, opacifying agents, pH adjusters, propellants, reducing agents, sequestrants, skin bleaching agents (or lightening agents) (e.g., hydroquinone, kojic acid, **ascorbic** acid, magnesium **ascorbyl** phosphate, **ascorbyl** glucosamine), skin soothing and/or healing agents (e.g., panthenol and derivatives (e.g., ethyl panthenol), aloe vera, pantothenic acid and its derivatives,. . .

SUMM . . . 6) methods of providing antiperspirant efficacy to skin; 7) methods of preventing, retarding, and/or treating wrinkles; 8) methods of providing **UV protection** to skin; 9) methods of preventing, retarding, and/or treating cellulite; 10) methods of preventing, retarding, and/or controlling the appearance of. . .

DETD . . . 0.544

Part A - Neutralization

Premix

(A)	USP Water	3.013
(A)	Sodium Hydroxide	0.0125

Part B - Niacinamide Premix

(B)	USP Water	5.000
(B)	Panthenol	0.500
(B)	Modified **Ascorbate** (from Example 8)	2.000
(B)	FD&C Yellow No. 5	0.00115
(B)	FD&C Red No. 40	0.00050
(C)	Sefa Cottonate	0.670
(C)	Isopropyl Isostearate	1.330

(C). . .

DETD . . . an appropriate container prepare Part D (Particulate Premix). Mix by mixer until homogenous. In an appropriate container, prepare the modified **ascorbate** premix. Add Part B ingredients into container, except FD&C Yellow/Red. Heat to no higher than 40.degree. C. while mixing until modified **ascorbate** is dissolved. Add FD&C Yellow/Red. Mix until dissolved. Prepare the Oil Phase. Add part C ingredients to oil phase except. . . 60.degree. C. and add sepigel. Switch to U-blade once formula looks smooth. Cool batch to 50.degree. C., then add modified **ascorbate** premix, Benzyl alcohol and Q2-1402. Cool batch to 40.degree. C. with periodic spatula mixing to insure homogeneity. When temperature reaches. . .

DETD [0161] In a suitable vessel, neat, chemically synthesized modified **ascorbate** is dissolved using an appropriate solvent. The modified asdcorbate is then recrystallized by sublimation method. Next, the recrystallized modified **ascorbate** is milled to the appropriate particle size.

DETD . . . form a solution of these materials. Next, the aluminum chlorohydroxide is added with gentle agitation, followed by the recrystallized modified **ascorbate** and remaining ingredients. The solution is mixed until a homogenous suspension is formed. The suspension is cooled to a temperature. . .

CLM What is claimed is:

16. A method of providing **UV protection** to skin wherein said method comprises topically applying the composition of claim 1 to skin wherein X is a sunscreen.

. . .

L10 ANSWER 19 OF 31 USPATFULL

AN 2002:307579 USPATFULL

TI Topical composition comprising a diazonium salt-based cosmetic bonding agent

IN Bekele, Haimanot, Cincinnati, OH, UNITED STATES

PA The Procter & Gamble Company

PI US 2002172698 A1 20021121
US 6491934 B2 20021210

AI US 2002-91741 A1 20020306 (10)

PRAI US 2001-273931P 20010307 (60)

DT Utility

FS APPLICATION

LREP THE PROCTER & GAMBLE COMPANY, INTELLECTUAL PROPERTY DIVISION, WINTON HILL TECHNICAL CENTER - BOX 161, 6110 CENTER HILL AVENUE, CINCINNATI, OH, 45224

CLMN Number of Claims: 17
ECL Exemplary Claim: 1
DRWN No Drawings
LN.CNT 1687
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The present invention relates to cosmetic compositions that comprise: a) a safe and effective amount of a diazonium salt bonding agent having the structure ##STR1##

wherein X represents a cosmetic benefit agent that may or may not be attached to a chemical linker; and b) a cosmetically acceptable carrier for the bonding agent wherein the composition is administered topically to mammalian proteinaceous substrates and wherein the bonding agent reacts with a protein contained in the substrate such that the bonding agent, and thus the cosmetic benefit agent, is covalently attached to the substrate. The invention further relates to methods of using the compositions described above as well as various products that include the claimed compositions.

TI Topical composition comprising a diazonium salt-based cosmetic bonding agent

SUMM . . . acid, retinol, retinoids, retinyl palmitate, retinyl proprionate, etc.), Vitamin B (e.g., niacin, niacinamide, riboflavin, pantothenic acid, etc.), Vitamin C (e.g., **ascorbic** acid, etc.), Vitamin D (e.g., ergosterol, ergocalciferol, cholecalciferol, etc.), Vitamin E (e.g., tocopherol acetate, etc.), and Vitamin K (e.g., phytonadione,. . .

SUMM . . . 2,4,4'-trichloro-2'-hydroxy diphenyl ether, 3,4,4'-trichlorobanilide, azelaic acid and its derivatives, phenoxyethanol, phenoxypropanol, phenoxyisopropanol, ethyl acetate, clindamycin and meclocycline; sebostats such as **flavonoids**; and bile salts such as scymnol sulfate and its derivatives, deoxycholate, and cholate.

SUMM [0075] **Flavonoids**

SUMM [0076] The cosmetic benefit agents of the present invention may also be a **flavonoid** compound. **Flavonoids** are broadly disclosed in U.S. Pat. Nos. 5,686,082 and 5,686,367. **Flavonoids** suitable for use in the present invention are flavanones selected from the group consisting of unsubstituted flavanones, mono-substituted flavanones, and. . . mixtures thereof; chalcones selected from the group consisting of unsubstituted chalcones, mono-substituted chalcones, di-substituted chalcones, tri-substituted chalcones, and mixtures thereof; **flavones** selected from the group consisting of unsubstituted **flavones**, mono-substituted **flavones**, di-substituted **flavones**, and mixtures thereof; one or more isoflavones; coumarins selected from the group consisting of unsubstituted coumarins, mono-substituted coumarins, di-substituted coumarins,. . . one or more chromanols; isomers (e.g., cis/trans isomers) thereof; and mixtures thereof. By the term "substituted" as used herein means **flavonoids** wherein one or more hydrogen atom of the **flavonoid** has been independently replaced with hydroxyl, C1-C8 alkyl, C1-C4 alkoxyl, O-glycoside, and the like or a mixture of these substituents.

SUMM [0077] Examples of suitable **flavonoids** include, but are not limited to, unsubstituted flavanone, mono-hydroxy flavanones (e.g., 2'-hydroxy flavanone, 6-hydroxy flavanone, 7-hydroxy flavanone, etc.), mono-alkoxy flavanones. . . chalcone, etc.), and tri-hydroxy chalcones (e.g., 2', 3 ', 4'-trihydroxy chalcone, 4,2', 4'-trihydroxy chalcone, 2, 2', 4'-trihydroxy chalcone, etc.), unsubstituted **flavone**, 7,2'-dihydroxy **flavone**, 3', 4'-dihydroxy naphthoflavone, 4'-hydroxy **flavone**, 5,6-benzoflavone, and 7,8-benzoflavone, unsubstituted isoflavone, daidzein (7,4'-dihydroxy isoflavone), 5,7-dihydroxy-4'-methoxy isoflavone, soy isoflavones (a

mixture extracted from soy), unsubstituted coumarin, 4-hydroxy. . .

SUMM . . . also further be derivatized (e.g., a glycoside, an ester or an ether derivative prepared following extraction from a natural source). **Flavonoid** compounds useful herein are commercially available from a number of sources, e.g., Indofine Chemical Company, Inc. (Somerville, N.J.), Steraloids, Inc.. . .

SUMM [0080] Mixtures of the above **flavonoid** compounds may also be used.

SUMM [0081] The herein described **flavonoid** compounds are preferably present in the instant invention at concentrations of from about 0.01% to about 20%, more preferably from. . .

SUMM . . . of a skin lightening agent. Suitable skin lightening agents include those known in the art, including kojic acid, arbutin, deoxyarbutin, **ascorbic** acid and derivatives thereof, e.g., magnesium **ascorbyl** phosphate or sodium **ascorbyl** phosphate or other salts of **ascorbyl** phosphate.

SUMM . . . pyrrolidone), humectants, opacifying agents, pH adjusters, propellants, reducing agents, sequestrants, skin bleaching agents (or lightening agents) (e.g., hydroquinone, kojic acid, **ascorbic** acid, magnesium **ascorbyl** phosphate, **ascorbyl** glucosamine), skin soothing and/or healing agents (e.g., panthenol and derivatives (e.g., ethyl panthenol), aloe vera, pantothenic acid and its derivatives,. . .

SUMM . . . 6) methods of providing antiperspirant efficacy to skin; 7) methods of preventing, retarding, and/or treating wrinkles; 8) methods of providing **UV protection** to skin; 9) methods of preventing, retarding, and/or treating cellulite; 10) methods of preventing, retarding, and/or controlling the appearance of. . .

DETD [0169] Antioxidant-modified bonding agent--Modified **ascorbate**

##STR11##

DETD . . . 0.544

Part A - Neutralization		
Premix		
(A)	USP Water	3.013
(A)	Sodium Hydroxide	0.0125
Part B - Niacinamide Premix		
(B)	USP Water	5.000
(B)	Panthenol	0.500
(B)	Modified **Ascorbate** (from Example 8)	2.000
(B)	FD&C Yellow No. 5	0.00115
(B)	FD&C Red No. 40	0.00050
(C)	Sefa Cottonate	0.670
(C)	Isopropyl Isostearate	1.330

(C). . .

DETD . . . an appropriate container prepare Part D (Particulate Premix). Mix by mixer until homogenous. In an appropriate container, prepare the modified **ascorbate** premix. Add Part B ingredients into container, except FD&C Yellow/Red. Heat to no higher than 40.degree. C. while mixing until modified **ascorbate** is dissolved. Add FD&C Yellow/Red. Mix until dissolved. Prepare the Oil Phase. Add part C ingredients to oil phase except. . . .degree. C. and add sepigel. Switch to U-blade once formula looks smooth. Cool batch to 50.degree. C., then add modified **ascorbate** premix, Benzyl alcohol and Q2-1402. Cool batch to 40.degree. C. with periodic spatula mixing to insure homogeneity. When temperature reaches. . .

DETD [0190] In a suitable vessel, neat, chemically synthesized modified **ascorbate** is dissolved using an appropriate solvent. The modified asdcorbate is then recrystallized by sublimation method. Next, the recrystallized modified **ascorbate** is milled to the appropriate particle size.

DETD . . . form a solution of these materials. Next, the aluminum

chlorohydroxide is added with gentle agitation, followed by the recrystallized modified **ascorbate** and remaining ingredients. The solution is mixed until a homogenous suspension is formed. The suspension is cooled to a temperature. . .

CLM What is claimed is:
16. A method of providing **UV protection** to skin wherein said method comprises topically applying the composition of claim 1 to skin wherein X is a sunscreen.
. . .

L10 ANSWER 20 OF 31 USPATFULL
AN 2002:273470 USPATFULL
TI FORMULATIONS HAVING AN ANTIVIRAL ACTION
IN BUCHHOLZ, HERWIG, FRANKFURT, GERMANY, FEDERAL REPUBLIC OF
WAGNER, ANNETTE, FRANKFURT, GERMANY, FEDERAL REPUBLIC OF
KRAUS, CHRISTINE, FRANKFURT, GERMANY, FEDERAL REPUBLIC OF
MEDUSKI, JERZEY D., DARMSTADT, GERMANY, FEDERAL REPUBLIC OF
PI US 2002151599 A1 20021017
AI US 1999-349713 A1 19990708 (9)
DT Utility
FS APPLICATION
LREP MILLEN, WHITE, ZELANO & BRANIGAN, P.C., 2200 CLARENDON BLVD., SUITE 1400, ARLINGTON, VA, 22201
CLMN Number of Claims: 15
ECL Exemplary Claim: 1
DRWN No Drawings
LN.CNT 447
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The present invention relates to formulations in solid or liquid form comprising isoquercitrin as a natural **flavonoid**, which is present therein as a light protection filter and/or antiviral substance. The invention relates to both cosmetic and medicinal formulations.
TI FORMULATIONS HAVING AN ANTIVIRAL ACTION
AB The present invention relates to formulations in solid or liquid form comprising isoquercitrin as a natural **flavonoid**, which is present therein as a light protection filter and/or antiviral substance. The invention relates to both cosmetic and medicinal. . .
SUMM [0001] The present invention relates to formulations in solid or liquid form comprising isoquercitrin as a natural **flavonoid**, which is present therein as a light protection filter and/or antiviral substance. The invention relates to both cosmetic and medicinal. . .
SUMM . . . from the group consisting of 5-ethydeoxyuridine, quercetin, galangin, kaempferol, propolis, chrysin, apigenin, luteolin, myricetin, acecetin, vitamins including the carotenes and **ascorbic** acid or with natural light protection filters, such as, for example, rutin, by exploiting a synergistic effect.
SUMM [0023] As well as isoquercitrin, the **UV protection** of the formulations can be improved by adding other natural UV filters, such as, for example, the compounds quercetin or. . .
CLM What is claimed is:
. . . amounts of 5-ethyldeoxyuridine, quercetin, galangin, kaempferol, propolis, chrysin, apigenin, luteolin, myricetin, acacetin, eriodictyol, isorhamnetin, or a glycoside thereof, vitamins, carotenes, **ascorbic** acid, or a light protection filter which is quercetin, quercitrin, catechol, hesperitin, rutin, or a glycoside thereof.

L10 ANSWER 21 OF 31 USPATFULL
AN 2002:258445 USPATFULL
TI USE OF **FLAVONOIDS** AS IMMUNOMODULATING OR IMMUNO-PROTECTIVE AGENTS IN COSMETIC AND DERMATOLOGICAL PREPARATIONS
IN LANZENDORFER, GHITA, HAMBURG, GERMANY, FEDERAL REPUBLIC OF

STAB, FRANZ, ECHEM, GERMANY, FEDERAL REPUBLIC OF
UNTIEDT, SVEN, HAMBURG, GERMANY, FEDERAL REPUBLIC OF

PI US 2002142012 A1 20021003
AI US 1997-849525 A1 19970829 (8)
WO 1995-EP4908 19951212
PRAI DE 1994-4444238 19941213
DT Utility
FS APPLICATION
LREP NORRIS, MCLAUGHLIN & MARCUS, P.A., 220 EAST 42ND STREET, 30TH FLOOR, NEW YORK, NY, 10017
CLMN Number of Claims: 14
ECL Exemplary Claim: 1
DRWN No Drawings
LN.CNT 868
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The invention relates to the use of cosmetic and dermatological formulations having

a) a content of a compound or several compounds from the group consisting of **flavonoids** or having

b) a content of an active compound combination comprising a compound or several compounds chosen from the group consisting of **flavonoids** in combination with a compound or several compounds chosen from the group consisting of cinnamic acid derivatives and

c) if appropriate an additional content of a compound or several compounds from the group consisting of antioxidants for treatment or prophylactic treatment of the immunosuppression induced by UVB radiation, in particular for treatment or prophylactic treatment of inflammatory, allergic or autoimmune-reactive symptoms, and for protecting cells which participate in the immune response of the skin.

TI USE OF **FLAVONOIDS** AS IMMUNOMODULATING OR IMMUNO-PROTECTIVE AGENTS IN COSMETIC AND DERMATOLOGICAL PREPARATIONS

TI USE OF **FLAVONOIDS** AS IMMUNOMODULATING OR IMMUNO-PROTECTIVE AGENTS IN COSMETIC AND DERMATOLOGICAL PREPARATIONS
AB a) a content of a compound or several compounds from the group consisting of **flavonoids** or having
AB b) a content of an active compound combination comprising a compound or several compounds chosen from the group consisting of **flavonoids** in combination with a compound or several compounds chosen from the group consisting of cinnamic acid derivatives and

SUMM . . . vitamin E or vitamin E esters, substances of known antioxidative action, in light protection formulations. However, the background was always **UV protection** by absorption of light or protection against photo-oxidative processes. Furthermore, the activity of vitamin E from topical vehicles was weak.. . .

DETD [0023] The substances according to the invention chosen from the group consisting of **flavonoids** and their glucosides, from the group of cinnamic acid derivatives and from the group of tocopherols and their derivatives are. . .

DETD . . . to the corresponding formulations. European Laid-Open Specification 586 303 and European Laid-Open Specification 595 694 furthermore describe the use of **flavonoids** as antioxidants or light protection substances in cosmetics. It is furthermore known from US-A 4,144,325 and 4,248,861 and from numerous. . .

DETD [0028] a) a content of a compound or several compounds from the group consisting of **flavonoids** or having

DETD . . . b) a content of an active compound combination comprising a compound or several compounds chosen from the group consisting of **flavonoids** in combination with a compound or several compounds chosen from the group consisting of cinnamic acid derivatives and

DETD [0035] Preferred **flavonoids** according to the invention are, for example, hydroxylated **flavones**, flavanones, isoflavones or chalcones, and in each case also glycosides thereof, as well as these non-hydroxylated base structures and parent. . .

DETD [0036] The **flavonoids** according to the invention are also designated A) below, the cinnamic acid derivatives according to the invention are designated B). . .

DETD [0037] According to the invention, the **flavonoids** A) are preferably chosen from the group consisting of substances of the generic structural formulae ##STR1##

DETD [0039] Further **flavonoids** according to the invention are advantageously chosen from the group consisting of substances of the following formulae: ##STR2##

DETD [0041] It is particularly advantageous in the context of the present invention to choose the **flavone** glycoside or glycosides from the group consisting of alpha-glucosyl-rutin, alpha-glucosylmyrictrin, alpha-glucosylisoquer-citrin and alpha-glucosylquercitrin.

DETD [0043] It may also be advantageous to omit the abovementioned glycosidic radicals Gly-.sub.3 and to use the unsubstituted **flavonoids** (Gly-.sub.3 =H), such as, for example, quercitin. It may also be of advantage to use **flavonoids** in which the glucoside radical is bonded to C7, C4', C3' or C5' via phenolic OH functions.

DETD [0044] It may furthermore be advantageous to use **flavonoids** in which the phenolic OH function on C9 is present in the free form (so-called chalcones) . It is particularly. . .

DETD [0045] It is advantageous in the context of the present invention to choose the **flavonoid** or **flavonoids** from the group consisting of quercitin, rutin, chrysin, kaempferol, myricetin, rhamnetin, apigenin, luteolin, naringin, hesperidin, naringenin, hesperitin, morin, phloridzin, diosmin, fisetin, vitexin, neohesperidin dihydrochalcone, **flavone**, glycosylrutin and genistein.

DETD [0046] The **flavonoids** which are particularly preferred according to the invention are chrysin, naringin, hesperidin, naringenin, hesperetin, morin, phloridzin, diosmin, neohesperidin dihydrochalcone, **flavone** and, in particular, alpha-glucosylrutin of the formula ##STR3##

DETD [0047] It can furthermore be advantageous in the context of the invention to use commercially available **flavonoid**-containing plant extracts. These can be aqueous-alcoholic or aqueous-glycolic extracts and dry extracts obtained by the customary methods.

DETD . . . Preferred combinations according to the invention are combinations of one or more substances from the group consisting of the abovementioned **flavonoids** or combinations of one or more representatives of the **flavonoids** with a derivative of cinnamic acid, or also the combination with several cinnamic acid derivatives.

DETD [0062] Combinations of **flavonoids**, **flavone** glucosides or **flavonoid**-containing plant extracts with ferulic acid and the combination of synthetically modified, in particular glycosylated **flavonoids**, such as alpha-glycosylrutin, with cinnamic acid derivatives are particularly preferred according to the invention.

DETD [0063] The weight ratio of the cinnamic acid derivatives to the **flavonoid** or **flavonoids** is advantageously 25:1 to 1:25, preferably 5:1 to 1:5, particularly preferably about 2:1 to 1:2.

DETD . . . and oleic acid), folic acid and derivatives thereof, ubiquinone and ubiquinol and derivatives thereof, vitamin C and derivatives (for example **ascorbyl** palmitate, Mg **ascorbyl** phosphate and **ascorbyl** acetate), vitamin A and derivatives (vitamin A palmitate) and coniferyl benzoate of benzoin resin, butylhydroxytoluene, butylhydroxyanisole, nordihydroguaiac resin acid, nordihydroguaiaretic. . .

DETD . . . combinations of several antioxidants, in particular if at least one of the components is chosen from the group consisting of **flavonoids** and glucosides thereof and cinnamic acid derivatives.

DETD [0075] It is particularly advantageous to use combinations of at least one compound from the **flavonoids** A) or derivatives thereof, at least one compound from the cinnamic acid derivatives B) and vitamin E or its derivatives. . .

DETD [0076] It is particularly advantageous to use combinations of synthetically modified, for example glycosylated **flavonoids** or derivatives thereof, ferulic acid and vitamin E or its derivatives. It is also particularly advantageous to use combinations of naturally occurring **flavonoids** or derivatives thereof, cinnamic acid and derivatives thereof and vitamin E or its derivatives.

DETD [0077] The weight content of active compounds from the group consisting of **flavonoids** and derivatives thereof and the group consisting of cinnamic acid and its derivatives can be varied in a wide range. . .

DETD [0078] The weight content of active compounds from the group consisting of **flavonoids** and derivatives thereof and the group consisting of tocopherol and its derivatives can likewise be varied within a wide range. . .

DETD [0079] If combinations of active compounds of the group consisting of **flavonoids** and derivatives thereof and the group consisting of cinnamic acid and its derivatives with the group consisting of tocopherol and. . .

DETD . . . cells, such as Langerhans cells, and for protection of cell constituents, the formulations according to the invention, preferably combinations of **flavonoids** and derivatives thereof, cinnamic acid and derivatives thereof and vitamin E and derivatives thereof, are applied to the skin in. . .

DETD [0143] Chrysin, naringen, hesperidin, naringenin, hesperitin, morin, phloridzin, diosmin, neohesperidin dihydrochalcone, **flavone**, glucosylrutin and cinnamic acid derivatives of the general formula ##STR8##

CLM What is claimed is:

. . . of cosmetic and dermatological formulations having a) a content of a compound or several compounds from the group consisting of **flavonoids** or having b) a content of an active compound combination comprising a compound or several compounds chosen from the group consisting of **flavonoids** in combination with a compound or several compounds chosen from the group consisting of cinnamic acid derivatives and c) if. . .

2. Use according to claim 1, characterized in that the **flavonoids** are chosen from the group consisting of alpha-glucosylrutin, alpha-glucosylmyrictrin, alphaglucosylisoquercitrinin and alpha-glucosylquercitrin, quercitin, rutin, chrysin, kaempferol, myricetin, rhamnetin, apigenin, luteolin, naringin, hesperidin, naringenin, hesperitin, morin, phloridzin, diosmin, fisetin, vitexin, neohesperidin dihydrochalcone, **flavone**, glucosylrutin and genistein.

. . . the skin, said method comprising applying an effective amount of a cosmetic or dermatological formulation comprising: a) one or more **flavonoids**; b) one or more cinnamic acid derivatives; and c) optionally an antioxidant to said skin.

9. The method according to claim 8, wherein the **flavonoid** is selected from the group consisting of alpha-glucosylrutin, alpha-glucosylmyrictrin, alpha-glucosylisoquercitrinin and alpha-glucosylquercitrin, quercitin, rutin, chrysin, kaempferol, myricetin, rhamnetin, apigenin, luteolin, naringin, hesperidin, naringenin, hesperitin, morin, phloridzin, diosmin, fisetin, vitexin,

neohesperidin dihydrochalocone, **flavone**, glucosylrutin and genistein.

10. The method according to claim 8, wherein the formulation comprises one or more **flavonoids** and one or more cinnamic acid derivatives.

14. A cosmetic or dermatological formulation which comprises an effective amount of: a) one or more **flavonoids**; b) optionally one or more cinnamic acid derivatives; c) optionally an oxidant; and d) alpha-glucosylatine and/or ferulic acid.

L10 ANSWER 22 OF 31 USPATFULL
AN 2002:220974 USPATFULL
TI Cosmetic and dermatological preparation for the removal of sebum
IN Herpens, Andreas, Reinbek, GERMANY, FEDERAL REPUBLIC OF
Wolf, Florian, Hoxter, GERMANY, FEDERAL REPUBLIC OF
Teichmann, Stephan, Wedel, GERMANY, FEDERAL REPUBLIC OF
Gohla, Sven, Hamburg, GERMANY, FEDERAL REPUBLIC OF
PI US 2002119109 A1 20020829
AI US 2001-891929 A1 20010626 (9)
PRAI DE 2000-10033717 20000712
DT Utility
FS APPLICATION
LREP KURT BRISCOE, NORRIS, MCLAUGHLIN & MARCUS, P.A., 220 EAST 42ND STREET, 30TH FLOOR, NEW YORK, NY, 10017
CLMN Number of Claims: 7
ECL Exemplary Claim: 1
DRWN No Drawings
LN.CNT 662
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Use of antiperspirant active ingredients for the manufacture of preparations for reducing the production of sebum.
TI Cosmetic and dermatological preparation for the removal of sebum
SUMM . . . unsaturated fatty acids and derivatives thereof (e.g. .gamma.-linolenic acid, linoleic acid, oleic acid), folic acid and derivatives thereof, alaninediacetic acid, **flavonoids**, polyphenols, catechins, vitamin C and derivatives (e.g. **ascorbyl** palmitate, Mg **ascorbyl** phosphate, **ascorbyl** acetate), tocopherols and derivatives (e.g. vitamin E acetate), and coniferyl benzoate of benzoin resin, rutinic acid and derivatives thereof, ferulic. . .
SUMM [0052] It is, for example, advantageous for the purposes of the present invention to use a content of **UV protection** substances.

L10 ANSWER 23 OF 31 USPATFULL
AN 2002:198291 USPATFULL
TI Cosmetic compositions
IN Vatter, Michael Lee, Okeana, OH, UNITED STATES
Sunkel, Jorge Max, Cincinnati, OH, UNITED STATES
PI US 2002106385 A1 20020808
AI US 2001-851507 A1 20010508 (9)
PRAI US 2000-217211P 20000710 (60)
US 2001-276998P 20010319 (60)
DT Utility
FS APPLICATION
LREP THE PROCTER & GAMBLE COMPANY, PATENT DIVISION, MIAMI VALLEY LABORATORIES, P.O. BOX 538707, CINCINNATI, OH, 45253-8707
CLMN Number of Claims: 14
ECL Exemplary Claim: 1

DRWN No Drawings
LN.CNT 1888
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The invention relates to cosmetic compositions comprising a combination of non-emulsifying and emulsifying crosslinked siloxane elastomers.
TI Cosmetic compositions
SUMM . . . as peptides (e.g., Matrixyl [pentapetide derivative]), farnesol, bisabolol, phytantriol, glycerol, urea, guanidine (e.g., amino guanidine); vitamins and derivatives thereof such **ascorbic** acid, vitamin A (e.g., retinoid derivatives such as retinyl palmitate or retinyl proprionate), vitamin E (e.g., tocopherol acetate), vitamin B.sub.3. . . and the like and mixtures thereof, sunscreens; anti-acne medicaments (resorcinol, salicylic acid, and the like; antioxidants (e.g., phytosterols, lipoic acid); **flavonoids** (e.g., isoflavones, phytoestrogens); skin soothing and healing agents such as aloe vera extract, allantoin and the like; chelators and sequestrants;. . .
SUMM . . . methods of applying a color cosmetic to skin; 5) methods of preventing, retarding, and/or treating wrinkles; 6) methods of providing **UV protection** to skin; 7) methods of preventing, retarding, and/or controlling the appearance of oil; 8) methods of modifying the feel and. . .
DETD . . . Wt %

Carnauba	1.50
Ozokerite	5.50
Candelilla	4.00
Hydrogenated Vegetable Oil	8.50
Acetylated Lanolin	4.00
Propylparaben	0.10
Cetyl Ricinoleate	10.00
Ascorbyl Palmitate	1.00
Polybutene	2.00
Polysiloxane Copolymer.sup.1	5.97
Stearyl Dimethicone (DC 2503 Cosmetic wax)	5.97
Anhydrous Lanolin	5.97
KSG 21.sup.2 Elastomer. . .	

L10 ANSWER 24 OF 31 USPATFULL
AN 2002:191226 USPATFULL
TI Cosmetic or dermatological impregnated wipes
IN Drucks, Anja, Hamburg, GERMANY, FEDERAL REPUBLIC OF
Fecht, Stephanie von der, Schenefeld, GERMANY, FEDERAL REPUBLIC OF
Kuther, Jorg, Schenefeld, GERMANY, FEDERAL REPUBLIC OF
PI US 2002102289 A1 20020801
AI US 2001-1565 A1 20011115 (10)
PRAI DE 2000-10059584 20001130
DT Utility
FS APPLICATION
LREP Howard C. Lee, Norris McLaughlin & Marcus, 30th Floor, 220 East 42nd Street, New York, NY, 10017
CLMN Number of Claims: 7
ECL Exemplary Claim: 1
DRWN No Drawings
LN.CNT 1500
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Cosmetic and dermatological wipes, where the wipes consist of a water-jet-consolidated and/or water-jet-impressed nonwoven material, which have been moistened with cosmetic and dermatological impregnation solutions which have a viscosity of less than 2000 mPa.multidot.s.

TI Cosmetic or dermatological impregnated wipes

SUMM . . . linoleic acid, oleic acid), folic acid and derivatives thereof, ubiquinone and ubiquinol and derivatives thereof, vitamin C and derivatives (e.g. **ascorbyl** palmitate, Mg **ascorbyl** phosphate, **ascorbyl** acetate), tocopherols and derivatives (e.g. vitamin E acetate), vitamin A and derivatives (vitamin A palmitate) and conyferyl benzoate of benzoin. . .

SUMM [0089] acetylsalicylic acid, atropine, azulene, hydrocortisone and derivatives thereof, e.g. hydrocortisone-17 valerate, vitamins, e.g. **ascorbic** acid and derivatives thereof, vitamins of the B and D series, very favorably vitamin B.sub.1, vitamin B.sub.12 and vitamin D.sub.1,. . .

SUMM [0104] Catechins are a group of compounds which are to be regarded as hydrogenated **flavones** or anthocyanidines and are derivatives of "catechin" (catechol, 3,3',4',5,7-flavanpentol, 2-(3,4-dihydroxyphenyl)chroman-3,5,7-triol). Epicatechin ((2R,3R)-3,3',4',5,7-flavanpentol) is also an advantageous active ingredient for the. . .

SUMM [0107] **Flavone** and its derivatives (also often collectively called "**flavones**") are also advantageous active ingredients for the purposes of the present invention. They are characterized by the following basic structure. . .

SUMM [0108] Some of the more important **flavones** which can also preferably be used in impregnation solutions according to the invention are given in the table below:

	OH substitution positions							
	3	5	7	8	2`	3`	4`	5`
Flavone	-	-	-	-	-	-	-	-
Flavonol	+	-	-	-	-	-	-	-
Chrysin	-	+	+	-	-	-	-	-
Galangin	+	+	+	-.	.	.		

SUMM [0109] In nature, **flavones** are usually in glycosylated form.

SUMM [0110] According to the invention, the **flavonoids** are preferably chosen from the group of substances of the generic structural formula ##STR3##

SUMM [0112] According to the invention, the **flavonoids** can however, also advantageously be chosen from the group of substances of the generic structural formula ##STR4##

SUMM . . . are, independently of one another, advantageously chosen from the group consisting of H, OH, methoxy, ethoxy and 2-hydroxyethoxy, and the **flavone** glycosides have the structure ##STR6##

SUMM [0118] The **flavone** glycosides according to the invention are particularly advantageously chosen from the group given by the following structure: ##STR7##

SUMM [0121] For the purposes of the present invention, it is particularly advantageous to choose the **flavone** glucoside(s) from the group consisting of .alpha.-glucosylrutin, .alpha.-glucosylmyricetin, .alpha.-glucosylisoquercitrin, .alpha.-glucosylisoquercetin and .alpha.-glucosylquercitrin.

SUMM . . . invention are naringin (aurantin naringenin-7-rhamno-glucoside), hesperidin 3',5,7-trihydroxy-4'-methoxyflavanone-7-rutinoside, hesperidoside, hesperetin-7-O-rutinoside), rutin (3,3',4',5,7-pentahydroxyflavone-3-rutinoside, quercetin-3-rutinoside, sophorin, birutan, rutabion, taurutin, phytomelin, melin), troxerutin (3,5-dihydroxy-3',4',7-tris(2-hydroxyethoxy)**flavone** -3-(6-O-(6-deoxy-.alpha.-L-mannopyranosyl).beta.-D-glucopyranoside)), monoxerutin (3,3',4',5-tetrahydroxy-7-(2-hydroxyethoxy)**flavone** -3-(6-O-(6-deoxy-.alpha.-L-mannopyranosyl)-.beta.-D-glucopyranoside)), dihydrorobinetin (3,3',4',5',7-pentahydroxyflavanone), taxifolin (3,3',4',5,7-pentahydroxyflavanone), eriodictyol-7-glucoside (3',4',

5,7-tetrahydroxyflavanone-7 glucoside), flavanomarein (3',4',7,8-tetrahydroxyflavanone-7 glucoside) and isoquercetin (3,3',4',5,7-pentahydroxyflavanone-3-(.beta.-D-glucopyranoside).

SUMM [0131] Preferred derivatives are creatine phosphate and creatine sulfate, creatine acetate, creatine **ascorbate** and the derivatives esterified at the carboxyl group with mono- or polyfunctional alcohols.

SUMM . . . cosmetic and dermatological wipes whose main use purpose is not protection against sunlight, but which nevertheless contain a content of **UV protection** substances.

SUMM [0137] **UV protection** substances, like antioxidants, and, if desired, preservatives, also provide effective protection of the preparations themselves against spoilage.

L10 ANSWER 25 OF 31 USPATFULL

AN 2002:148252 USPATFULL

TI Cosmetic and dermatological preparation with a content of cyclodextrins for the removal of sebum

IN Max, Heiner, Hamburg, GERMANY, FEDERAL REPUBLIC OF
Nielsen, Jens, Henstedt-Ulzburg, GERMANY, FEDERAL REPUBLIC OF
Raschke, Thomas, Pinneberg, GERMANY, FEDERAL REPUBLIC OF

PI US 2002076389 A1 20020620

AI US 2001-909311 A1 20010719 (9)

PRAI DE 2000-10039063 20000810

DT Utility

FS APPLICATION

LREP KURT BRISCOE, NORRIS, MCLAUGHLIN & MARCUS, P.A., 220 EAST 42ND STREET, 30TH FLOOR, NEW YORK, NY, 10017

CLMN Number of Claims: 7

ECL Exemplary Claim: 1

DRWN No Drawings

LN.CNT 716

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Use of cyclodextrins for the manufacture of preparations for reducing the production of sebum or the use of cyclodextrins for the manufacture of preparations for the removal of sebum.

TI Cosmetic and dermatological preparation with a content of cyclodextrins for the removal of sebum

SUMM . . . unsaturated fatty acids and derivatives thereof (e.g. .gamma.-linolenic acid, linoleic acid, oleic acid), folic acid and derivatives thereof, alaninediacetic acid, **flavonoids**, polyphenols, catechins, vitamin C and derivatives (e.g. **ascorbyl** palmitate, Mg **ascorbyl** phosphate, **ascorbyl** acetate), tocopherols and derivatives (e.g. vitamin E acetate), and coniferyl benzoate of benzoin resin, rutinic acid and derivatives thereof, ferulic. . .

SUMM [0057] It is, for example, advantageous for the purposes of the present invention to use a content of **UV protection** substances.

L10 ANSWER 26 OF 31 USPATFULL

AN 2002:48032 USPATFULL

TI Anhydrous cosmetic compositions

IN Vatter, Michael Lee, Okeana, OH, UNITED STATES
Sunkel, Jorge Max, Cincinnati, OH, UNITED STATES
Motley, Curtis Bobby, West Chester, OH, UNITED STATES

PI US 2002028223 A1 20020307
US 6475500 B2 20021105

AI US 2001-850892 A1 20010508 (9)

PRAI US 2000-217040P 20000710 (60)

DT Utility

FS APPLICATION

LREP THE PROCTER & GAMBLE COMPANY, PATENT DIVISION, MIAMI VALLEY LABORATORIES, P.O. BOX 538707, CINCINNATI, OH, 45253-8707
CLMN Number of Claims: 15
ECL Exemplary Claim: 1
DRWN No Drawings
LN.CNT 2044
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB An anhydrous skin treatment composition is provided which includes a crosslinked siloxane elastomer gel of specific yield point, a skin conditioning agent and a volatile siloxane. Inclusions of the select elastomers provide improved uniform distribution of the pigments.
TI Anhydrous cosmetic compositions
SUMM . . . as peptides (e.g., Matrixyl [pentapetide derivative]), famesol, bisabolol, phytantriol, glycerol, urea, guanidine (e.g., amino guanidine); vitamins and derivatives thereof such **ascorbic** acid, vitamin A (e.g., retinoid derivatives such as retinyl palmitate or retinyl proprionate), vitamin E (e.g., tocopherol acetate), vitamin B.sub.3. . . and the like and mixtures thereof; sunscreens; anti-acne medicaments (resorcinol, salicylic acid, and the like; antioxidants (e.g., phytosterols, lipoic acid); **flavonoids** (e.g., isoflavones, phytoestrogens); skin soothing and healing agents such as aloe vera extract, allantoin and the like; chelators and sequestrants;. . .
SUMM . . . methods of applying a color cosmetic to skin; 5) methods of preventing, retarding, and/or treating wrinkles; 6) methods of providing **UV protection** to skin; 7) methods of preventing, retarding, and/or controlling the appearance of oil; 8) methods of modifying the feel and. . .

L10 ANSWER 27 OF 31 USPATFULL
AN 2002:47993 USPATFULL
TI Cosmetic compositions
IN Sunkel, Jorge Max, Cincinnati, OH, UNITED STATES
Vatter, Michael Lee, Okeana, OH, UNITED STATES
PI US 2002028184 A1 20020307
US 6524598 B2 20030225
AI US 2001-850763 A1 20010508 (9)
PRAI US 2000-217114P 20000710 (60)
DT Utility
FS APPLICATION
LREP THE PROCTER & GAMBLE COMPANY, PATENT DIVISION, MIAMI VALLEY LABORATORIES, P.O. BOX 538707, CINCINNATI, OH, 45253-8707
CLMN Number of Claims: 14
ECL Exemplary Claim: 1
DRWN No Drawings
LN.CNT 1805
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The invention relates to cosmetic compositions comprising a combination of non-emulsifying and emulsifying crosslinked siloxane elastomers.
TI Cosmetic compositions
SUMM . . . as peptides (e.g., Matrixyl [pentapetide derivative]), farnesol, bisabolol, phytantriol, glycerol, urea, guanidine (e.g., amino guanidine); vitamins and derivatives thereof such **ascorbic** acid, vitamin A (e.g., retinoid derivatives such as retinyl palmitate or retinyl proprionate), vitamin E (e.g., tocopherol acetate), vitamin B.sub.3. . . and the like and mixtures thereof; sunscreens; anti-acne medicaments (resorcinol, salicylic acid, and the like; antioxidants (e.g., phytosterols, lipoic acid); **flavonoids** (e.g., isoflavones, phytoestrogens); skin soothing and healing agents such as aloe vera extract, allantoin and the like; chelators and sequestrants;. . .
SUMM . . . methods of applying a color cosmetic to skin; 5) methods of

preventing, retarding, and/or treating wrinkles; 6) methods of providing **UV protection** to skin; 7) methods of preventing, retarding, and/or controlling the appearance of oil; 8) methods of modifying the feel and. . .

DETD . . . Wt %

Carnauba	1.50
Ozokerite	5.50
Candelilla	4.00
Hydrogenated Vegetable Oil	8.50
Acetylated Lanolin	4.00
Propylparaben	0.10
Cetyl Ricinoleate	10.00
Ascorbyl Palmitate	1.00
Polybutene	2.00
Polysiloxane Copolymer.sup.1	5.97
Stearyl Dimethicone (DC 2503 Cosmetic wax)	5.97
Anhydrous Lanolin	5.97
KSG 21.sup.2 Elastomer. . .	

L10 ANSWER 28 OF 31 USPATFULL
AN 2002:31971 USPATFULL
TI Anhydrous cosmetic compositions
IN Vatter, Michael Lee, Okeana, OH, UNITED STATES
Sunkel, Jorge Max, Cincinnati, OH, UNITED STATES
Motley, Curtis Bobby, Chester, OH, UNITED STATES
PI US 2002018791 A1 20020214
AI US 2001-850961 A1 20010508 (9)
PRAI US 2000-217170P 20000710 (60)
DT Utility
FS APPLICATION
LREP THE PROCTER & GAMBLE COMPANY, PATENT DIVISION, MIAMI VALLEY LABORATORIES, P.O. BOX 538707, CINCINNATI, OH, 45253-8707
CLMN Number of Claims: 15
ECL Exemplary Claim: 1
DRWN No Drawings
LN.CNT 1559
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB An anhydrous skin treatment composition is provided which includes a crosslinked emulsifying siloxane elastomer, at least 20% humectant and a volatile siloxane. Inclusion of the elastomer provides a non-traditional smooth/silky feel to the skin upon application with a non-draggy rub in.
TI Anhydrous cosmetic compositions
DETD . . . as peptides (e.g., Matrixyl [pentapetide derivative]), famesol, bisabolol, phytantriol, glycerol, urea, guanidine (e.g., amino guanidine); vitamins and derivatives thereof such **ascorbic** acid, vitamin A (e.g., retinoid derivatives such as retinyl palmitate or retinyl proprionate), vitamin E (e.g., tocopherol acetate), vitamin B.sub.3. . . and the like and mixtures thereof; sunscreens; anti-acne medicaments (resorcinol, salicylic acid, and the like; antioxidants (e.g., phytosterols, lipoic acid); **flavonoids** (e.g., isoflavones, phytoestrogens); skin soothing and healing agents such as aloe vera extract, allantoin and the like; chelators and sequestrants;. . .
DETD . . . methods of applying a color cosmetic to skin; 5) methods of preventing, retarding, and/or treating wrinkles; 6) methods of providing **UV protection** to skin; 7) methods of preventing, retarding, and/or controlling the appearance of oil; 8) methods of modifying the feel and. . .

L10 ANSWER 29 OF 31 USPATFULL
AN 2002:31970 USPATFULL
TI Cosmetic compositions
IN Vatter, Michael Lee, Okeana, OH, UNITED STATES
Sunkel, Jorge Max, Cincinnati, OH, UNITED STATES
Motley, Curtis Bobby, West Chester, OH, UNITED STATES
PI US 2002018790 A1 20020214
AI US 2001-850845 A1 20010508 (9)
PRAI US 2000-217428P 20000710 (60)
DT Utility
FS APPLICATION
LREP THE PROCTER & GAMBLE COMPANY, PATENT DIVISION, MIAMI VALLEY LABORATORIES, P.O. BOX 538707, CINCINNATI, OH, 45253-8707
CLMN Number of Claims: 17
ECL Exemplary Claim: 1
DRWN No Drawings
LN.CNT 1883
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB A skin treatment composition is provided which includes a crosslinked siloxane elastomer gel of specific yield point, a skin-conditioning agent, a volatile siloxane and water. Inclusions of the select elastomers provide improved uniform distribution of the pigments.
TI Cosmetic compositions
SUMM . . . as peptides (e.g., Matrixyl [pentapetide derivative]), farnesol, bisabolol, phytantriol, glycerol, urea, guanidine (e.g., amino guanidine); vitamins and derivatives thereof such **ascorbic** acid, vitamin A (e.g., retinoid derivatives such as retinyl palmitate or retinyl proprionate), vitamin E (e.g., tocopherol acetate), vitamin B.sub.3. . . and the like and mixtures thereof; sunscreens; anti-acne medicaments (resorcinol, salicylic acid, and the like; antioxidants (e.g., phytosterols, lipoic acid); **flavonoids** (e.g., isoflavones, phytoestrogens); skin soothing and healing agents such as aloe vera extract, allantoin and the like; chelators and sequestrants;. . .
SUMM . . . methods of applying a color cosmetic to skin; 5) methods of preventing, retarding, and/or treating wrinkles; 6) methods of providing **UV protection** to skin; 7) methods of preventing, retarding, and/or controlling the appearance of oil; 8) methods of modifying the feel and. . .
DETD . . . Wt %

Carnauba	1.50
Ozokerite	5.50
Candelilla	4.00
Hydrogenated Vegetable Oil	8.50
Acetylated Lanolin	4.00
Propylparaben	0.10
Cetyl Ricinoleate	10.00
Ascorbyl Palmitate	1.00
Polybutene	2.00
Polysiloxane Copolymer.sup.1	5.97
Stearyl Dimethicone (DC 2503 Cosmetic wax)	5.97
Anhydrous Lanolin	5.97
DC 9040.sup.2 Elastomer. . .	

L10 ANSWER 30 OF 31 USPATFULL
AN 1998:24908 USPATFULL
TI Waterproof cosmetic or dermatological photoprotective preparations
IN Gers-Barlag, Heinrich, Kummerfeld, Germany, Federal Republic of
Hachmann, Stefan, Norderstedt, Germany, Federal Republic of

Nissen, Bente, Hamburg, Germany, Federal Republic of
Schultz, Sabine, Hamburg, Germany, Federal Republic of
PA Beiersdorf AG, Hamburg, Germany, Federal Republic of (non-U.S. corporation)
PI US 5725844 19980310
WO 9417780 19940818
AI US 1995-495643 19951127 (8)
WO 1994-EP257 19940129
19951127 PCT 371 date
19951127 PCT 102(e) date
PRAI DE 1993-4303983 19930211
DE 1993-4342719 19931215
DT Utility
FS Granted
EXNAM Primary Examiner: Dodson, Shelley A.
LREP Sprung Kramer Schaefer & Briscoe
CLMN Number of Claims: 14
ECL Exemplary Claim: 1
DRWN No Drawings
LN.CNT 653
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Water-resistant cosmetic or dermatological light protection formulations in the form of O/W emulsions or hydrodispersions, comprising

one or more cosmetically or pharmaceutically acceptable hydrophobic inorganic pigments, these pigments being incorporated into the oily phase of the emulsions or hydrodispersions,

one or more cosmetically or pharmaceutically acceptable oil-soluble UV filter substances,

one or more film-forming agents

and furthermore, comprising, if appropriate,

one or more cosmetically or pharmaceutically acceptable water-soluble UV filter substances

one or more substances chosen from the group consisting of the customary cosmetic or dermatological active compounds, auxiliaries and/or additives

in a customary cosmetic or pharmaceutical carrier.
TI Waterproof cosmetic or dermatological photoprotective preparations
SUMM . . . harmful to the skin, since water absorbs light in the UVA and UVB range poorly, and consequently represents no noticeable **UV protection**, not even for submerged areas of skin.
SUMM The antioxidants are particularly advantageously chosen from the group consisting of **ascorbic** acid (vitamin C), **ascorbic** acid derivatives, the various tocopherols (vitamin E) and tocopheryl esters or other tocopherol derivatives, folic acid (previously called vitamin B.sub.c,. . . fytic acid), the various ubiquinones (mitoquinones, coenzyme Q), bile extract, cis- and/or trans-urocanic acid (4-imidazolylacrylic acid), carnosine (N-.beta.-alanyl-L-histidine, ignotine), histidine, **flavones** or **flavonoids**, cystins (3,3'-dithiobis(2-aminopropionic acid)), cystsine (2-amino-3-mercaptopropionic acid) and derivatives thereof (for example N-acetylcysteine), the various carotenes (in particular .beta.-carotene and lycopene. . .

L10 ANSWER 31 OF 31 USPATFULL
AN 97:31734 USPATFULL

TI Active compound combinations having a content of glyceryl alkyl ethers and cosmetic and dermatological formulations comprising such active compound combinations

IN Sch onrock, Uwe, Norderstedt, Germany, Federal Republic of
Degwert, Joachim, Tostedt, Germany, Federal Republic of
Steckel, Friedhelm, Hamburg, Germany, Federal Republic of
PA Beiersdorf Aktiengesellschaft, Hamburg, Germany, Federal Republic of (non-U.S. corporation)

PI US 5621012 19970415
AI US 1995-457770 19950601 (8)
PRAI DE 1994-4420625 19940614
DT Utility
FS Granted
EXNAM Primary Examiner: Dodson, Shelley A.
LREP Sprung Horn Kramer & Woods
CLMN Number of Claims: 9
ECL Exemplary Claim: 1
DRWN No Drawings
LN.CNT 769
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Active compound combinations comprising active contents of

(a) one or more glycerol ethers of saturated and/or unsaturated, branched and/or unbranched aliphatic alcohols having 12 to 24 carbon atoms,

(b) bisabolol and/or panthenol

(c) and if appropriate one or more substances chosen from the group consisting of cosmetically or dermatologically acceptable antioxidants.

TI Active compound combinations having a content of glyceryl alkyl ethers and cosmetic and dermatological formulations comprising such active compound combinations

SUMM **ascorbic** acid (vitamin C), **ascorbic** acid derivatives, the various tocopherols (vitamin E) and tocopheryl esters and other tocopherol derivatives, folic acid (formerly called vitamin B.sub.c,. . . fytic acid), the various ubiquinones (mitoquinones, coenzyme Q), bile extract, cis- and/or transurocanic acid (4-imidazolylacrylic acid), carnosine (N-.beta.-alanyl-L-histidine, ignotine), histidine, **flavones** or **flavonoids**, cystine (3,3'-dithiobis(2-aminopropionic acid)), cysteine (2-amino-3-mercaptopropionic acid) and derivatives thereof (for example N-acetylcysteine), the various carotenes (in particular .beta.-carotene and lycopene. . .

SUMM . . . and dermatological formulations of which the main purpose is not protection from sunlight, but which nevertheless comprise a content of **UV protection** substances. Thus, for example, UVA and UVB filter substances are usually incorporated into day creams.

09/980,388

Welcome to STN International! Enter x:x

LOGINID:sssptau125txc

PASSWORD:
TERMINAL (ENTER 1, 2, 3, OR ?):2

* * * * * * * * * * Welcome to STN International * * * * * * * * * *

NEWS 1		Web Page URLs for STN Seminar Schedule - N. America
NEWS 2		"Ask CAS" for self-help around the clock
NEWS 3	Jun 03	New e-mail delivery for search results now available
NEWS 4	Aug 08	PHARMAMarketLetter(PHARMAML) - new on STN
NEWS 5	Aug 19	Aquatic Toxicity Information Retrieval (AQUIRE) now available on STN
NEWS 6	Aug 26	Sequence searching in REGISTRY enhanced
NEWS 7	Sep 03	JAPIO has been reloaded and enhanced
NEWS 8	Sep 16	Experimental properties added to the REGISTRY file
NEWS 9	Sep 16	CA Section Thesaurus available in CAPLUS and CA
NEWS 10	Oct 01	CASREACT Enriched with Reactions from 1907 to 1985
NEWS 11	Oct 24	BEILSTEIN adds new search fields
NEWS 12	Oct 24	Nutraceuticals International (NUTRACEUT) now available on STN
NEWS 13	Nov 18	DKILIT has been renamed APOLLIT
NEWS 14	Nov 25	More calculated properties added to REGISTRY
NEWS 15	Dec 04	CSA files on STN
NEWS 16	Dec 17	PCTFULL now covers WP/PCT Applications from 1978 to date
NEWS 17	Dec 17	TOXCENTER enhanced with additional content
NEWS 18	Dec 17	Adis Clinical Trials Insight now available on STN
NEWS 19	Jan 29	Simultaneous left and right truncation added to COMPENDEX, ENERGY, INSPEC
NEWS 20	Feb 13	CANCERLIT is no longer being updated
NEWS 21	Feb 24	METADEX enhancements
NEWS 22	Feb 24	PCTGEN now available on STN
NEWS 23	Feb 24	TEMA now available on STN
NEWS 24	Feb 26	NTIS now allows simultaneous left and right truncation
NEWS 25	Feb 26	PCTFULL now contains images
NEWS 26	Mar 04	SDI PACKAGE for monthly delivery of multifile SDI results
NEWS 27	Mar 20	EVENTLINE will be removed from STN
NEWS 28	Mar 24	PATDPAFULL now available on STN
NEWS 29	Mar 24	Additional information for trade-named substances without structures available in REGISTRY
NEWS 30	Apr 11	Display formats in DGENE enhanced
NEWS 31	Apr 14	MEDLINE Reload
NEWS 32	Apr 17	Polymer searching in REGISTRY enhanced
NEWS 33	Jun 13	Indexing from 1947 to 1956 added to records in CA/CAPLUS
NEWS 34	Apr 21	New current-awareness alert (SDI) frequency in WPIDS/WPINDEX/WPIX
NEWS 35	Apr 28	RDISCLOSURE now available on STN
NEWS 36	May 05	Pharmacokinetic information and systematic chemical names added to PHAR
NEWS 37	May 15	MEDLINE file segment of TOXCENTER reloaded
NEWS 38	May 15	Supporter information for ENCOMPPAT and ENCOMPLIT updated
NEWS 39	May 16	CHEMREACT will be removed from STN
NEWS 40	May 19	Simultaneous left and right truncation added to WSCA
NEWS 41	May 19	RAPRA enhanced with new search field, simultaneous left and right truncation
NEWS 42	Jun 06	Simultaneous left and right truncation added to CBNB
NEWS 43	Jun 06	PASCAL enhanced with additional data

```
 NEWS 44  Jun 20  2003 edition of the FSTA Thesaurus is now available
 NEWS 45  Jun 25  HSDB has been reloaded

 NEWS EXPRESS  April 4 CURRENT WINDOWS VERSION IS V6.01a, CURRENT
               MACINTOSH VERSION IS V6.0b(ENG) AND V6.0Jb(JP),
               AND CURRENT DISCOVER FILE IS DATED 01 APRIL 2003
 NEWS HOURS    STN Operating Hours Plus Help Desk Availability
 NEWS INTER    General Internet Information
 NEWS LOGIN    Welcome Banner and News Items
 NEWS PHONE    Direct Dial and Telecommunication Network Access to STN
 NEWS WWW      CAS World Wide Web Site (general information)

Enter NEWS followed by the item number or name to see news on that
specific topic.

  All use of STN is subject to the provisions of the STN Customer
  agreement.  Please note that this agreement limits use to scientific
  research.  Use for software development or design or implementation
  of commercial gateways or other similar uses is prohibited and may
  result in loss of user privileges and other penalties.

  * * * * * * * * * * * * * * STN  Columbus  * * * * * * * * * * * * * * *

FILE 'HOME' ENTERED AT 09:06:16 ON 09 JUL 2003

=> FILE USPATFULL
COST IN U.S. DOLLARS                                SINCE FILE      TOTAL
                                                       ENTRY    SESSION
FULL ESTIMATED COST                                     0.21       0.21

FILE 'USPATFULL' ENTERED AT 09:06:25 ON 09 JUL 2003
CA INDEXING COPYRIGHT (C) 2003 AMERICAN CHEMICAL SOCIETY (ACS)

FILE COVERS 1971 TO PATENT PUBLICATION DATE: 8 Jul 2003 (20030708/PD)
FILE LAST UPDATED: 8 Jul 2003 (20030708/ED)
HIGHEST GRANTED PATENT NUMBER: US6591423
HIGHEST APPLICATION PUBLICATION NUMBER: US2003126664
CA INDEXING IS CURRENT THROUGH 8 Jul 2003 (20030708/UPCA)
ISSUE CLASS FIELDS (/INCL) CURRENT THROUGH: 8 Jul 2003 (20030708/PD)
REVISED CLASS FIELDS (/NCL) LAST RELOADED: Feb 2003
USPTO MANUAL OF CLASSIFICATIONS THESAURUS ISSUE DATE: Feb 2003

>>>  USPAT2 is now available.  USPATFULL contains full text of the     <<<
>>>  original, i.e., the earliest published granted patents or         <<<
>>>  applications.  USPAT2 contains full text of the latest US         <<<
>>>  publications, starting in 2001, for the inventions covered in     <<<
>>>  USPATFULL.  A USPATFULL record contains not only the original     <<<
>>>  published document but also a list of any subsequent              <<<
>>>  publications.  The publication number, patent kind code, and      <<<
>>>  publication date for all the US publications for an invention     <<<
>>>  are displayed in the PI (Patent Information) field of USPATFULL   <<<
>>>  records and may be searched in standard search fields, e.g., /PN, <<<
>>>  /PK, etc.                                                         <<<

>>>  USPATFULL and USPAT2 can be accessed and searched together        <<<
>>>  through the new cluster USPATALL.  Type FILE USPATALL to          <<<
>>>  enter this cluster.                                               <<<
>>>                                                                    <<<
>>>  Use USPATALL when searching terms such as patent assignees,       <<<
>>>  classifications, or claims, that may potentially change from      <<<
>>>  the earliest to the latest publication.                           <<<
```

This file contains CAS Registry Numbers for easy and accurate substance identification.

```
=> S UV (W) PROTECTION
        119220 UV
        341484 PROTECTION
L1         890 UV (W) PROTECTION

=> S L1 AND FLAVON?
          2740 FLAVON?
L2          49 L1 AND FLAVON?

=> S L2 AND SUNSCREEN
          3986 SUNSCREEN
L3          31 L2 AND SUNSCREEN

=> S L3 AND PD<2000
       2606647 PD<2000
                  (PD<20000000)
L4            3 L3 AND PD<2000

=> D L4 1-3 BIB, AB, KWIC

L4   ANSWER 1 OF 3  USPATFULL
AN     2002:152185  USPATFULL
TI     Composition comprising one or more flavonoids, method of
       obtaining such composition and use thereof as UV-absorbing agent
IN     Plaschke, Kim, N.ae butted.stved, DENMARK
PA     Flavone Sunproducts A/S, Naestved, DENMARK (non-U.S. corporation)
PI     US 6409996          B1   20020625
       WO 9925316  19990527
AI     US 2000-554763           20000519 (9)
       WO 1998-DK505            19981119
                                20000519  PCT 371 date
PRAI   DK 1997-1316        19971119
DT     Utility
FS     GRANTED
EXNAM  Primary Examiner: Dees, Jose' G.; Assistant Examiner: Lamm, Marina
LREP   Dykema Gossett PLLC
CLMN   Number of Claims: 27
ECL    Exemplary Claim: 1
DRWN   4 Drawing Figure(s); 4 Drawing Page(s)
LN.CNT 958
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB     A flavonoid-containing sunscreen composition having
       UV absorbency at 282 nm in water contains at least one flavanone and at
       least one flavone, the flavanone providing 75 to 98% of the UV
       absorbency at 282 nm and the flavone providing 2 to 25% of the
       absorbency at 282 nm. The composition is formed of flavonoids
       extracted from citrus fruit using water, and separating the extracted
       flavonoids using a sorbent material, and then recovering the
       flavonoids from the sorbent material using a solvent.
TI     Composition comprising one or more flavonoids, method of
       obtaining such composition and use thereof as UV-absorbing agent
PI     US 6409996          B1   20020625
       WO 9925316  19990527
AB     A flavonoid-containing sunscreen composition having
       UV absorbency at 282 nm in water contains at least one flavanone and at
       least one flavone, the flavanone providing 75 to 98% of the UV
       absorbency at 282 nm and the flavone providing 2 to 25% of the
       absorbency at 282 nm. The composition is formed of flavonoids
       extracted from citrus fruit using water, and separating the extracted
```

flavonoids using a sorbent material, and then recovering the **flavonoids** from the sorbent material using a solvent.

SUMM The present invention relates to a composition that contains one or more **flavonoids**, a method of obtaining such composition, and the use thereof as UV-absorbing agent, i.e., for producing a **sunscreen** product.

SUMM In the art of **sunscreen** production it has been found that **flavonoids** may be used in order to enhance absorption of UV-radiation.

SUMM The abstract of Japanese document JP-55-111411-A discloses the use of **flavonol** in cosmetics for the purpose of protecting against sunburn.

SUMM Another effort to use a **flavonoid** as a sun protecting agent is disclosed in Japanese patent abstract JP-63-96120A, which describes an anti-suntan cosmetic including i.a. a **flavone** derivative and/or a coumarine. Unfortunately, coumarines are known to be skin irritating and are generally an unwanted substance in products. . .

SUMM . . . the article "Orange Peel Wax", Cosmetics & Toiletries magazine vol. 109, august 1994, that the wax extracted from oranges comprises **flavonoids**, carotenoids and unsaturated monoesters, and that these compounds have strong UV-absorptive properties.

SUMM Thus, many prior art **sunscreen** products aim to protect primarily against UV-B. Wearing a **sunscreen** product, people tend to expose A) themselves to direct sunlight for extended periods of time, counting on the protection offered by the **sunscreen**. However, long term influence by UV-A may cause accelerated aging of the skin and is also recognized as eventually causing. . .

SUMM . . . cosmetic and/or dermatological composition for preventing harmful effects on human skin due to UV-radiation. The composition comprises one or more **flavonoids** or their glucosides and preferably also both a cinnamon acid derivative and an anti oxidizing agent such as vitamin E. The **flavonoids** can, according to WO 96/18382, be obtained as various plant extracts, and are preferably **flavonones**, e.g., naringin and hesperidin.

SUMM . . . stinging or sensible skin. The composition is essentially the same as disclosed in WO 96/18382 and comprises one or more **flavonoid** components optionally combined with a cinnamon acid derivative and an anti oxidizing agent.

SUMM . . . tan their skin and UV-radiance plays an important role in the tanning process, it is thus desirable to provide a **sunscreen** product enabling both tanning and at the same time offering substantial protection of the skin cells. However, as indicated above,. . .

SUMM This object is obtained by the composition according to the invention characterized in that it includes at least one **flavonone** and at least one **flavone** and having an UV-absorbency at 282 nm in water where the flavanone(s) accounts for 75-98% of the **flavonoids** absorbency, and where the **flavone**(s) accounts for 2-25% of the **flavonoids** UV-absorbency at 282 nm in the composition.

SUMM This first aspect of the invention is based on the recognition that flavanones are particularly effective as UV-B-filters and **flavones** are particularly effective as UV-A-filters, and the recognition that a particularly advantageous composition of flavanones and **flavones** exists, where said composition of **flavonoids** has an absorbency profile in terms of UV-radiation at specific wavelengths, which profile matches the degradation profile of human skin. . .

SUMM . . . surprisingly been found that this criterion is met by a composition comprising at least one flavanone and at least one **flavone**, in which composition the flavanone part preferably represents about 75-98% of the **flavonoids** UV-absorbency in water at 282 nm, and the **flavone** part preferably represents

about 2-25% of the **flavonoids** UV-absorbency in water at 282 nm.

SUMM The term "**flavonoids** UV-absorbency" designates the total amount of UV-absorbency caused by the **flavonoids** in the composition.

SUMM Preferably the flavanones account for 78-90% of the absorbency and the **flavones** account for 2-10% of the **flavonoids** absorbency in water at 282 nm, and more preferably the flavanones account for 80-85% of the absorbency and the **flavones** account for 3-5% of the **flavonoids** absorbency in water at 282 nm.

SUMM . . . be provided by the same and/or other substances, e.g., carotenoids; however, this further absorbency is preferably provided substantially by other **flavonoids**, and even more preferably substantially by flavanones, flavanoles and/or **flavones**.

SUMM . . . preferred embodiment of the composition according to the invention the composition comprises at least one flavanone and at least one **flavone**, where said flavanone(s) accounts for 75-98% of the **flavonoids** absorbency, and where said **flavone**(s) accounts for 2-25% of the **flavonoids** UV-absorbency at 282 nm in an aqueous solution of the composition.

SUMM This particularly advantageous ratio between flavanone and **flavone** is obtained when the respective absorbency at 282 nm for flavanone and **flavone** is as disclosed above.

SUMM It is furthermore, preferable if the ratio between flavanones and **flavones** in dry weight (solids content) is around between 50:1 to 2:1, more preferable around 30:1 to 5:1 and even more. . .

SUMM . . . be accomplished by a composition of flavanoids and particularly defined as comprising at least one flavanone and at least one **flavone**, which composition is characterized in that the **flavonoids** have a UV-absorption profile in water in the wavelength range 270-360 nm and at a total **flavonoid** concentration of 20-30 .mu.g/ml, preferably about 25 .mu.g/ml, said profile substantially falling within the +/-30% limits of the profile in. . .

SUMM Said composition of **flavonoids** preferably comprise at least one flavanone-based and at least one **flavone**-based compound selected from naringin (naringenin-7.beta.-neohesperidoside; 5,7,4'-trihydroxyflavanone-7.beta.-neohesperidoside) and/or neohesperidin (hesperitin-7.beta.-neohesperidoside; 5,7,3'-trihydroxy-4'-methoxyflavanone-7.beta.-neohesperidoside) and/or neoeriocitrin (eriodictyol-7.beta.-neohesperidoside; 5,7,3',4'-tetrahydroxyflavanone-7.beta.-neohesperidoside) and/or isonaringin (isonaringenin-7.beta.-neohesperidoside; 5,7,4'-trihydroxyisoflavanone-7.beta.-neohesperidoside) and rhoifolin (apigenin-7.beta.-neohesperidoside; 4',5,7-trihydroxyflavone-7.beta.-neohesperidoside) and/or luteolin-7.beta.-neohesperidoside (5,7,3',4'-tetrahydroxyflavone-7.beta.-neohesperidoside and/or veronicastroside) and/or neodiosmin (5,7,3'-trihydroxy-4'-methoxyflavone-7.beta.-neohesperidoside). Other known flavanones and **flavones**, e.g. those mentioned in "The flavanoids, Advances in research since 1986", J. B. Harborne, Chapman & Hall 1.sup.st ed. 1994. . .

SUMM It has been found that the particularly advantageous UV-absorption profile may be obtained by a composition comprising the **flavonoids** naringin, neohesperidin, neoeriocitrin, isonaringin and rhoifolin. Particularly compositions comprising a flavanone having substantially the absorption profile of naringin or neohesperidin and a **flavone** having substantially the absorption profile of rhoifolin are preferred. Naringin or neohesperidin being the most preferred flavanone(s) and rhoifolin being the most preferred **flavone**. Rhoifolin has proven to be particularly advantageous to apply in order to obtain a suitable absorption profile also in the. . .

SUMM According to a preferred embodiment of the composition according to the

invention, each of the above mentioned **flavonoids** account for an amount of the UV-absorption of the composition at 282 nm in water corresponding to naringin and/or neohesperidin:. . .

SUMM A preliminary clinical test conducted on 8 persons at a dermatological clinic indicated the following: A concentration of the **flavonoid** product in a UV-neutral cream of 0.75%-1% equaled a sun protection factor of 4 (DIN standard). A concentration of the **flavonoid** product in a UV-neutral cream 1.5% equaled a sun protection factor of 8 (DIN standard).

SUMM When determining the absorbency of a composition comprising **flavonoids** according to the invention, it is preferred that the concentration of the composition is adjusted in such a way that. . . more preferable the absorbencyis measured within a concentration range where the absorbency is linear dependent on the concentration of the **flavonoids** in the composition. This is typically the case in the absorbency range up till about 1. The sample may be. . .

SUMM **Flavonoids** are generally very suitable as **sunscreen** agents because they, apart from their UV-absorbency, are both non-toxic and extremely stable. Many prior art chemical compounds used as **sunscreen** agents decompose over time and/or due to the high energy of the UV-radiation, and the decomposition products are in many. . .

SUMM The present invention also relates to dermatological applicable products, e.g. a **sunscreen** product, comprising a composition of **flavonoids** according to the invention and further excipients. These excipients comprising all generally known components in the art of producing sun. . .

SUMM . . . amount of these in order to obtain a certain absorption. However, it is generally preferable to use the composition of **flavonoids** according to the invention as substantially the only essential UV-absorbing agents in sun screen products, i.e. without cinnamon acid derivatives,. . .

SUMM It is a further object of the present invention to provide a process for the preparation of a composition of **flavonoids** having the above mentioned advantageous properties.

SUMM It is generally known to extract **flavonoids** from various plant material and several processes for obtaining the **flavonoids** has been suggested. However, it seems that no known process provides a composition as suggested above per se.

SUMM Furthermore, it seems that if substantially pure **flavones** and flavanones are mixed in water, their solubility is far less than desirable for suitable application as UV-absorbers in water. . .

SUMM The article "Anti-erythematous and photoprotective activities in guinea pigs and in man of topically applied **flavonoids** from Helicrysum Italicum G. Don.", Acta Therapeutica 14 (1988), discloses the use of **flavonoids** as a means to avoid or treat erythematous skin. Furthermore the article discloses a method of extracting **flavonoids** from the plant "Helicrysum Italicum G. Don" using dried leaves from the plant. The leaves are milled and percolated in. . . subjected to solid-phase chromatography elution using petroleum ether. Further elution using n-hexane removes lipophilic substances and the fraction comprising the **flavonoids** is obtained from the column by elution using ethyl-acetate, which is subsequently evaporated using vacuum.

SUMM Chemical abstracts vol. 127, no. 17, 238967m, discloses a process for extracting the total amount of **flavone** from ginko biloba leaves. The process comprises extraction of **flavonoids** from dried ginko biloba leaves with methanol and purification using the polycarboxyl ester resin XAD-7 from a water/methanol mixture. The abstract also discloses that the pH did not effect the adsorption of the **flavonoids**, but at high pH the chemical structure of the **flavonoids** was changed. Also the polarity of the solvent is

discussed.

SUMM . . . to environmental reasons it is generally undesirable to use large quantities of organic solvents such as methanol for extracting the **flavonoids** at industrial scale levels.

SUMM Furthermore, as discussed earlier it is generally desirable to make cosmetics, i.a. **sunscreen** products, which in essence is aqueous-based or gel-based rather than based on organic solvents and/or oils. This i.a. being due to undesirable side-effects of many such organic solvents. By using organic solvents for extracting the **flavonoids** as disclosed above, also unwanted and/or toxic substances are extracted. It is thus necessary to apply a costly purification step in order to obtain an applicable **flavonoid** fraction.

SUMM However, it appears that a **flavonoids** obtained by the highly basic extraction of **flavonoids** suggested in U.S. Pat. Nos. 2,421,061 and 2,442,110 have a very low solubility.

SUMM . . . means of hot water and purifying the naringin through ultrafiltration and resin adsorption. However, ultrafiltration also seems to impair the **flavonoids** solubility significantly.

SUMM Chemical abstracts vol. 126, no. 9, 119332v, discloses a process for extracting the total amount of **flavone** from ginko biloba leaves. The process comprises repeated extraction with water and purification through chromatography using a polyamide resin as adsorbent and ethanol as eluent. This process only extracts the **flavone** content of the ginko biloba and is both slow and troublesome.

SUMM Unfortunately, neither the **flavonoid**-containing orange peel wax discussed in the introduction nor the **flavonoid**-containing fractions obtained by the above mentioned methods exhibit sufficient solubility in water for practical application of the **flavonoids** as an active substance in a substantially water-based cosmetic product, i.e. as a **sunscreen** agent.

SUMM . . . object of the present invention to overcome the stated problems and to obtain a method of preparing a composition of **flavonoids** suitable for use as an active ingredient in a **sunscreen** product and being sufficiently soluble in water to enable the production of an essentially water- and/or gel-based **sunscreen** product.

SUMM These objects are obtained by the method according to the invention, wherein a **flavonoid** containing raw material is treated with an extraction medium to obtain an extract and wherein said composition is separated from. . .

SUMM a) extracting the **flavonoids** by means of an aqueous medium at a temperature between 20 and 60.degree. C. and at a pH at or. . .

SUMM b) separating the **flavonoids** from the extract by adsorption or absorption by means of a sorbent-material at a pH below 7, and

SUMM c) obtaining the **flavonoids** from the sorbent-material by means of a solvent.

SUMM It has surprisingly been found that the **flavonoids** may be extracted directly from the **flavonoid**-containing raw material using water or a substantially aqueous medium as the extraction medium and that the **flavonoid**-comprising fraction may be separated from the thus obtained aqueous extract in an advantageously both gentle and efficient manner using adsorption. . .

SUMM The extraction may be performed in any way that enables the **flavonoids** of the raw material to migrate to the extraction medium, e.g. it may be performed as a percolation step, by. . .

SUMM . . . 6 and more preferably around 2 to 5. Within this range it is possible to obtain the desired composition comprising **flavonoids** using the method according to the invention.

SUMM . . . pH of the extraction medium and/or the extract may as mentioned be adjusted, and at some pH-values some of the **flavonoids** may crystallize. According to the invention it is preferred to keep the **flavonoids** solubilized in the extract at any time up till the

absorption/adsorption and the pH-value of the extract should be adjusted accordingly. Within the above mentioned pH-range no precipitation of **flavonoids** are observed by the method according to the invention.

SUMM The **flavonoid** fraction may be separated from the extraction medium by any known adsorption and/or absorption method, e.g., by bringing the extract. . .

SUMM According to a preferred embodiment of the method according to the invention the extract comprising the **flavonoid**(s) is subjected to a solid-phase adsorption and/or absorption using a sorbent comprising separation reactor, in which the **flavonoid** fraction is adsorbed to and/or absorbed by the sorbent-material. During the separation step, it is preferred to stir the content. . .

SUMM As sorbent-material may be used any sorbent-material capable of retaining the desired **flavonoid**-containing fraction. Preferably the sorbent-material is a non-ionic polymeric adsorbent, e.g. a cross-linked moderately polar acrylic ester polymer. This type of sorbent-material has proven to have a particularly suitable affinity towards the desired **flavonoids**, and an advantageous low affinity towards unwanted substances.

SUMM . . . the sorbent-material substantially has an approximate average pore diameter of about 80-100 .ANG., more preferably around 85-95 .ANG.. The desired **flavonoids** are estimated to have sizes around 20-40 .ANG.. However, using a sorbent-material having too small a pore size results in a too slow absorption or even an exclusion of the **flavonoids**. Using too large a pore size will result in too many unwanted substances in the final product.

SUMM This specific combination of specifications has proven particularly suitable for extracting **flavonoids** from a substantially aqueous medium according to the invention.

SUMM . . . to the raw material, extraction medium and/or the extract. However, the use of enzymes tend to decrease the yield of **flavonoids**.

SUMM . . . and to remove it from the sorbent material, e.g. by one of the above disclosed methods, after removal of the **flavonoid** fraction.

SUMM The separated **flavonoid** fraction may be extracted from the sorbent-material using various, preferably relatively polar, solvents, e.g. water mixed with acetonitrile and trichloro. . .

SUMM Ethanol has proven to be particularly suitable for extracting the **flavonoid** composition from the sorbent-material, in terms of effectiveness.

SUMM . . . any ratio and is advantageously also relatively non-toxic and thus acceptable in a wide range of products in which the **flavonoid** composition in question is applicable. Another advantage of using ethanol is, that ethanol is easily evaporated, thus reducing cost of. . .

SUMM Accordingly the ethanol-phase may subsequently be evaporated to obtain a **flavonoid**/ethanol composition of the desired concentration or even completely evaporated to dry state. Evaporated and/or destilled-off ethanol may further be condensed. . .

SUMM An even further advantage of the method according to the invention is that the resulting **flavonoid** fraction is significantly more soluble in water than corresponding fractions obtained by the prior art methods.

SUMM It is believed that this latter effect is at least partly due to the fact that naturally occurring water soluble **flavonoids** preferably comprises a glucoside moiety. When subjecting naturally occurring **flavonoids** to the rather rough treatment of the prior art methods, some of the glucoside-bonds might decompose rendering the **flavonoid** moiety less soluble in water.

SUMM The method according to the invention seems to prevent the

glucoside-bonds from decomposing, thus resulting in a **flavonoid** composition having significantly higher solubility in water, than **flavonoids** obtained by the prior art method.

SUMM . . . further believed that the increased solubility in water is at least partly caused by a synergistic effect between the specific **flavonoids** obtainable by the method according to the invention and/or between the **flavonoids** and other substances present in the thus obtained composition.

SUMM . . . range, and at a certain pH, a single adsorption/absorption step on the substantially aqueous extract and a retrieval of the **flavonoids** by preferably ethanol, seems to facilitate to production of particularly water soluble **flavonoids**.

SUMM Furthermore, the process according to the invention seems per se to provide a **flavonoid** fraction having a more suitable UV-absorption profile for use as an active ingredient in sun screen agents than **flavonoids** obtainable by the prior art methods and starting from the same raw material.

SUMM The **flavonoid** containing raw material is preferably chopped or milled before the treatment with the extraction medium.

SUMM As raw material for the process, all **flavonoid** comprising material may be used. Naturally it is preferred to use material containing a substantial amount of **flavonoid**.

SUMM Citrus fruits are known to comprise a substantial amount of **flavonoids** and accordingly it is preferred to use citrus fruits as raw-material for the method according to the invention. Examples of. . .

SUMM . . . to comprise a substantial amount of skin-irritating substances, e.g. D-limonen, these substances are substantially not comprised in the composition comprising **flavonoids** obtainable according to the method.

SUMM The invention also relates to a composition of **flavonoids** obtainable by the method according to the invention. When using citrus fruits as raw material the entire fruit or any. . .

SUMM . . . raw material for the method according to the invention. Citrus Aurantium has surprisingly been found to contain higher levels of **flavonoids** than most other known citrus fruits and is thus a particularly advantageous raw material in terms of amounts of obtainable **flavonoids**.

SUMM It has been found that the ratio between size and level of **flavonoid** in Citrus Aurantium is most advantageous when the fruit is around 2.5-4 cm in diameter, preferably around 3-3.5 cm in. . .

SUMM Even further it has surprisingly been found that the composition of **flavonoids** derivable from Citrus Aurantium using the method according to the invention is particularly soluble in water.

SUMM . . . in particular by the method according to the invention, thus resulting in a significantly higher solubility in water of the **flavonoids** comprised in the composition relative to other compositions of **flavonoids**.

SUMM When extracting **flavonoids** from citrus fruits and in particular Citrus Aurentium in an aqueous medium as disclosed above it has proven advantageous to. . .

SUMM It has furthermore, surprisingly been found that the absorption-curve of the composition of naturally occurring **flavonoids** found in Citrus Aurantium fruits substantially anticipates the degradation-curve of DNA subjected to the suns UV-light. This is particularly the. . .

SUMM Accordingly it seems that the composition of **flavonoids** derived from Citrus Aurantium in particular by the method according to the invention has per se the particularly advantageous absorbency. . .

SUMM Therefore it is a particularly preferred embodiment of the composition according to the invention that the composition of **flavonoids** is prepared from Citrus Aurantium. Furthermore, it is a particularly

preferred embodiment of the process according to the invention that. . .

SUMM The invention also relates to the use of **flavonoid** containing extracts from Citrus Aurentium as a UV-absorbing ingredient in a sun screen product.

SUMM By means of the composition comprising **flavonoids** according to the invention it is possible to obtain **sunscreen** products having superior properties than prior art **sunscreen** products, in terms of both efficient **UV-protection** of skin-cell DNA and general skin-healthcare.

SUMM Accordingly the invention also relates to the use of the composition comprising **flavonoids** according to the invention as a sun screen agent.

SUMM The invention further relates to a **sunscreen** product comprising the composition of **flavonoids** according to the invention and further excipients.

SUMM The term **flavonoid** as used herein designates all substances based on **flavonol**, **flavone**, and flavanone and their derivatives, e.g. their iso-derivatives and their glucosides. Such **flavonoids** comprises e.g. naringin (naringenin-7.beta.-neohesperidoside; 5,7,4"-trihydroxyflavanone-7.beta.-neohesperidoside), neohesperidin (hesperitin-7.beta.-neohesperidoside; 5,7,3'-trihydroxy-4'-methoxyflavanone-7.beta.-neohesperidoside), neoeriocitrin (eriodictyol-7.beta.-neohesperidoside; 5,7,3',4'-tetrahydroxyflavanone-7.beta.-neohesperidoside), isonaringin (isonaringenin-7.beta.-neohesperidoside; 5,7,4'-trihydroxyisoflavanone-7.beta.-neohesperidoside), rhoifolin (apigenin-7.beta.-neohesperidoside; 4',5,7-trihydroxyflavone-7.beta.-neohesperidoside), luteolin-7.beta.-neohesperidoside (5,7,3',4'-tetrahydroxyflavone-7.beta.-neohesperidoside, veronicastroside),. . .

DETD FIG. 1 illustrates a preferred UV-absorption curve 1 profile for an aqueous composition comprising **flavonoids** according to the invention and at a total **flavonoid** concentration of 25 .mu.g/ml. Preferred 20% (2 and 2') and 30%-interval (3 and 3') limits are drafted relative to the preferred UV-absorption curve profile. The preferred UV-absorption curve profile is a typical UV-absorption curve for the composition of **flavonoids** obtainable from Citrus Aurantium by the method according to the invention.

DETD . . . the absorption curve in FIG. 1, it substantially anticipates the degradation curve in FIG. 2. Accordingly the aqueous composition of **flavonoids** according to the invention is extremely suitable as an active component in a **sunscreen** product, in terms of protecting at the wavelengths were the DNA is most vulnerable and letting the less damaging wavelengths. . .

DETD The extract in terms of **flavonoid** enriched extraction medium E enters continuously the separation reactor 6 through a filter unit 5 comprising a valve, in which. . .

DETD Through the filter unit 12 comprising a valve an amount of solvent corresponding to the amount of **flavonoid** enriched solvent I entering the reactor 10 is continuously transferred to an evaporator 13, where the solvent is heated by. . .

DETD When the equilibrium of **flavonoids** in the extract is reached the extract E is transferred to a sorbent containing separation reactor 6 through a filter. . .

DETD When the equilibrium of **flavonoids** in the extract in the separation reactor 6 is reached the used extraction medium is removed through the filter unit. . .

DETD . . . the reactor 6, and the content of the reactor is stirred using a stirrer (not shown). When the equilibrium of **flavonoids** in the solvent in the separation reactor 6 is reached the **flavonoid** enriched solvent I is transferred to an evaporator 13, where the solvent is heated by means of a temperature control. . .

DETD The thus obtained extract in terms of **flavonoid** enriched extraction medium is led to a 5000 l separation reactor at a rate of about 50 l/min through a. . .

DETD . . . corresponding the incoming amount of sorbent-material is returned from the elution reactor to the separation reactor, and an amount of **flavonoid** enriched ethanol corresponding to the incoming amount of ethanol is led from the elution reactor to an evaporator.

DETD The about 2500 kg Citrus Aurantium results in about 35-40 kg pulverous composition comprising **flavonoids** or a corresponding amount of solubilized composition in ethanol at any desired concentration.

DETD . . . for UV-absorption. At UV-absorption equilibrium (when the UV-absorption at 282 nm no longer rises significantly), the extract in terms of **flavonoid** enriched extraction medium is led to a 30000 l separation reactor through a filter unit, in which reactor the extract. . .

DETD An amount of 25000 l ethanol is led to the separation reactor as a solvent for the **flavonoid** comprising composition. The content of the reactor is stirred, and solvent samples are continuously tested for UV-absorption. At UV-absorption equilibrium (when the UV-absorption at 282 nm no longer rises significantly), the **flavonoid** enriched solvent is led to an evaporator in which the solvent is evaporated and the product is concentrated to obtain about 35-40 kg pulverous composition comprising **flavonoids** or a corresponding amount of solubilized composition in ethanol at any desired concentration.

CLM What is claimed is:

1. A composition comprising **flavonoids** including at least one flavanone selected from the group consisting of naringin, neohesperidin, neoeriocitrin and isonaringin, and at least one **flavone** comprising rhoifolin, said composition having a UV-absorbency at 282 nm in water where said at least one flavanone accounts for 75-98% of UV-absorbency of said **flavonoids**, and where **flavones** accounts for 2-25% of UV-absorbency of said **flavonoids** at 282 nm.

. . . to claim 1, wherein the at least one flavanone has an absorption profile substantially as naringin and neohesperidin and the **flavones** have an absorption profile substantially as rhoifolin.

4. A composition according to claim 1, including the **flavonoids** naringin, neohesperidin, neoeriocitrin, isonaringin and rhoifolin.

. . . accounts for 5-15% of the UV-absorption, isonaringin accounts for 1-10% of the UV-absorption and rhoifolin accounts for 1-10% of the **flavonoids** UV-absorption at 282 nm in aqueous solution.

6. A composition comprising one or more **flavonoids**, including at least one flavanone selected from the group consisting of naringin, neohesperidin, neoeriocirin and isonaringin, and at least one **flavone** comprising rhoifolin, said composition having a UV-absorption profile in water in the wavelength range 270-360 nm and at a total **flavonoid** concentration of 25 .mu.g/ml, said profile substantially falling within the +/-30% limits of the profile in FIG. 1.

7. A composition comprising one or more **flavonoids**, including at least one flavanone selected from the group consisting of naringin, neohesperidin, neoeriocirin and isonaringin, and at least one **flavone** comprising rhoifolin, said composition exhibiting an absorption ratio of 1.8-2.4 between the UV-absorption 282 nm and the average UV-absorption at. . .

8. A method of preparing a composition according to claims 1, 6 or 7

comprising **flavonoids**, wherein a **flavonoid** -containing raw material in the form of immature citrus fruit is treated with an extraction medium to obtain an extract from. . . extraction medium at a temperature between 20 and 60.degree. C. and at a pH at or below 7 to extract **flavonoids** into the extraction medium, b) separating the **flavonoids** from the extraction medium by adsorption or absorption by means of a sorbent-material at a pH below 7, and c) obtaining the **flavonoids** from the sorbent-material by means of a solvent.

20. A method according to claim 8, wherein the composition comprising **flavonoids** is extracted from the sorbent-material using a polar solvent.

21. A method according to claim 8, wherein the composition comprising **flavonoids** is extracted from the sorbent-material using a solvent consisting essentially of ethanol.

26. A **sunscreen** product comprising a composition of **flavonoids** according to claims 1, 6 or 7.

27. A **sunscreen** product according to claim 26 in the form of a gel and/or is substantially water based.

L4 ANSWER 2 OF 3 USPATFULL
AN 1998:24908 USPATFULL
TI Waterproof cosmetic or dermatological photoprotective preparations
IN Gers-Barlag, Heinrich, Kummerfeld, Germany, Federal Republic of
Hachmann, Stefan, Norderstedt, Germany, Federal Republic of
Nissen, Bente, Hamburg, Germany, Federal Republic of
Schultz, Sabine, Hamburg, Germany, Federal Republic of
PA Beiersdorf AG, Hamburg, Germany, Federal Republic of (non-U.S. corporation)
PI US 5725844 19980310 <--
WO 9417780 19940818 <--
AI US 1995-495643 19951127 (8)
WO 1994-EP257 19940129
19951127 PCT 371 date
19951127 PCT 102(e) date
PRAI DE 1993-4303983 19930211
DE 1993-4342719 19931215
DT Utility
FS Granted
EXNAM Primary Examiner: Dodson, Shelley A.
LREP Sprung Kramer Schaefer & Briscoe
CLMN Number of Claims: 14
ECL Exemplary Claim: 1
DRWN No Drawings
LN.CNT 653
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Water-resistant cosmetic or dermatological light protection formulations in the form of O/W emulsions or hydrodispersions, comprising

one or more cosmetically or pharmaceutically acceptable hydrophobic inorganic pigments, these pigments being incorporated into the oily phase of the emulsions or hydrodispersions,

one or more cosmetically or pharmaceutically acceptable oil-soluble UV filter substances,

one or more film-forming agents

and furthermore, comprising, if appropriate,

one or more cosmetically or pharmaceutically acceptable water-soluble UV filter substances

one or more substances chosen from the group consisting of the customary cosmetic or dermatological active compounds, auxiliaries and/or additives

in a customary cosmetic or pharmaceutical carrier.

PI US 5725844 19980310 <--
WO 9417780 19940818 <--

SUMM . . . those situated above LF 15, can in general be achieved only by large amounts of UV filter substances. If a **sunscreen** product is also still to have a high light protection factor after bathing, the UV filter substance in particular must. . .

SUMM It is in itself already troublesome if the **sunscreen** product has to be applied again after bathing. During bathing itself, under certain circumstances the use of a light protection. . . harmful to the skin, since water absorbs light in the UVA and UVB range poorly, and consequently represents no noticeable **UV protection**, not even for submerged areas of skin.

SUMM A tacky **sunscreen** product, however, is particularly unpleasant precisely during summertime heat, that is to say the usual temperature at which such formulations. . .

SUMM . . . Dastis describe some of the film-forming agents which are advantageous according to the invention in "A New Waterproofing Agent for **Sunscreen** Products", Cosmetics & Toiletries 102, March 1987, pages 107-109, they give no indication that the water resistance which can possibly. . .

SUMM . . . fytic acid), the various ubiquinones (mitoquinones, coenzyme Q), bile extract, cis- and/or trans-urocanic acid (4-imidazolylacrylic acid), carnosine (N-.beta.-alanyl-L-histidine, ignotine), histidine, **flavones** or **flavonoids**, cystins (3,3'-dithiobis(2-aminopropionic acid)), cystsine (2-amino-3-mercaptopropionic acid) and derivatives thereof (for example N-acetylcysteine), the various carotenes (in particular .beta.-carotene and lycopene. . .

SUMM Emulsions according to the invention, for example in the form of a **sunscreen** cream or a **sunscreen** milk, are advantageous and comprise, for example, the fats, oils, waxes and other fatty substances mentioned, as well as water. . .

SUMM Those cosmetic and dermatological formulations which are in the form of a **sunscreen** composition, a pre-soleil soleil or apres-soleil product, are advantageous according to the invention. These advantageously additionally comprise at least one. . .

SUMM Those cosmetic and dermatological formulations which are in the form of a **sunscreen** composition, a pre-soleil or apres-soleil product, and comprise one or more antioxidants in addition to the UVA filter or filters. . .

L4 ANSWER 3 OF 3 USPATFULL

AN 97:31734 USPATFULL

TI Active compound combinations having a content of glyceryl alkyl ethers and cosmetic and dermatological formulations comprising such active compound combinations

IN Sch onrock, Uwe, Norderstedt, Germany, Federal Republic of
Degwert, Joachim, Tostedt, Germany, Federal Republic of
Steckel, Friedhelm, Hamburg, Germany, Federal Republic of

PA Beiersdorf Aktiengesellschaft, Hamburg, Germany, Federal Republic of (non-U.S. corporation)

PI US 5621012 19970415 <--

AI US 1995-457770 19950601 (8)
PRAI DE 1994-4420625 19940614
DT Utility
FS Granted
EXNAM Primary Examiner: Dodson, Shelley A.
LREP Sprung Horn Kramer & Woods
CLMN Number of Claims: 9
ECL Exemplary Claim: 1
DRWN No Drawings
LN.CNT 769
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Active compound combinations comprising active contents of

(a) one or more glycerol ethers of saturated and/or unsaturated, branched and/or unbranched aliphatic alcohols having 12 to 24 carbon atoms,

(b) bisabolol and/or panthenol

(c) and if appropriate one or more substances chosen from the group consisting of cosmetically or dermatologically acceptable antioxidants.

PI US 5621012 19970415 <--

SUMM . . . fytic acid), the various ubiquinones (mitoquinones, coenzyme Q), bile extract, cis- and/or transurocanic acid (4-imidazolylacrylic acid), carnosine (N-.beta.-alanyl-L-histidine, ignotine), histidine, **flavones** or **flavonoids**, cystine (3,3'-dithiobis(2-aminopropionic acid)), cysteine (2-amino-3-mercaptopropionic acid) and derivatives thereof (for example N-acetylcysteine), the various carotenes (in particular .beta.-carotene and lycopene. . .

SUMM Those cosmetic and dermatological formulations which are in the form of a **sunscreen** agent are also favourable. These preferably comprise, in addition to the active compound combinations according to the invention, additionally at. . .

SUMM . . . and dermatological formulations of which the main purpose is not protection from sunlight, but which nevertheless comprise a content of **UV protection** substances. Thus, for example, UVA and UVB filter substances are usually incorporated into day creams.

SUMM . . . and/or dermatological formulations which protect the skin from the entire range of ultraviolet radiation. They can also be used as **sunscreen** agents.

SUMM . . . form of a skin protection cream, a skin lotion or a cosmetic milk, for example in the form of a **sunscreen** cream or a **sunscreen** milk, are advantageous and comprise, for example, the fats, oils, waxes and other fatty substances mentioned, as well as water. . .